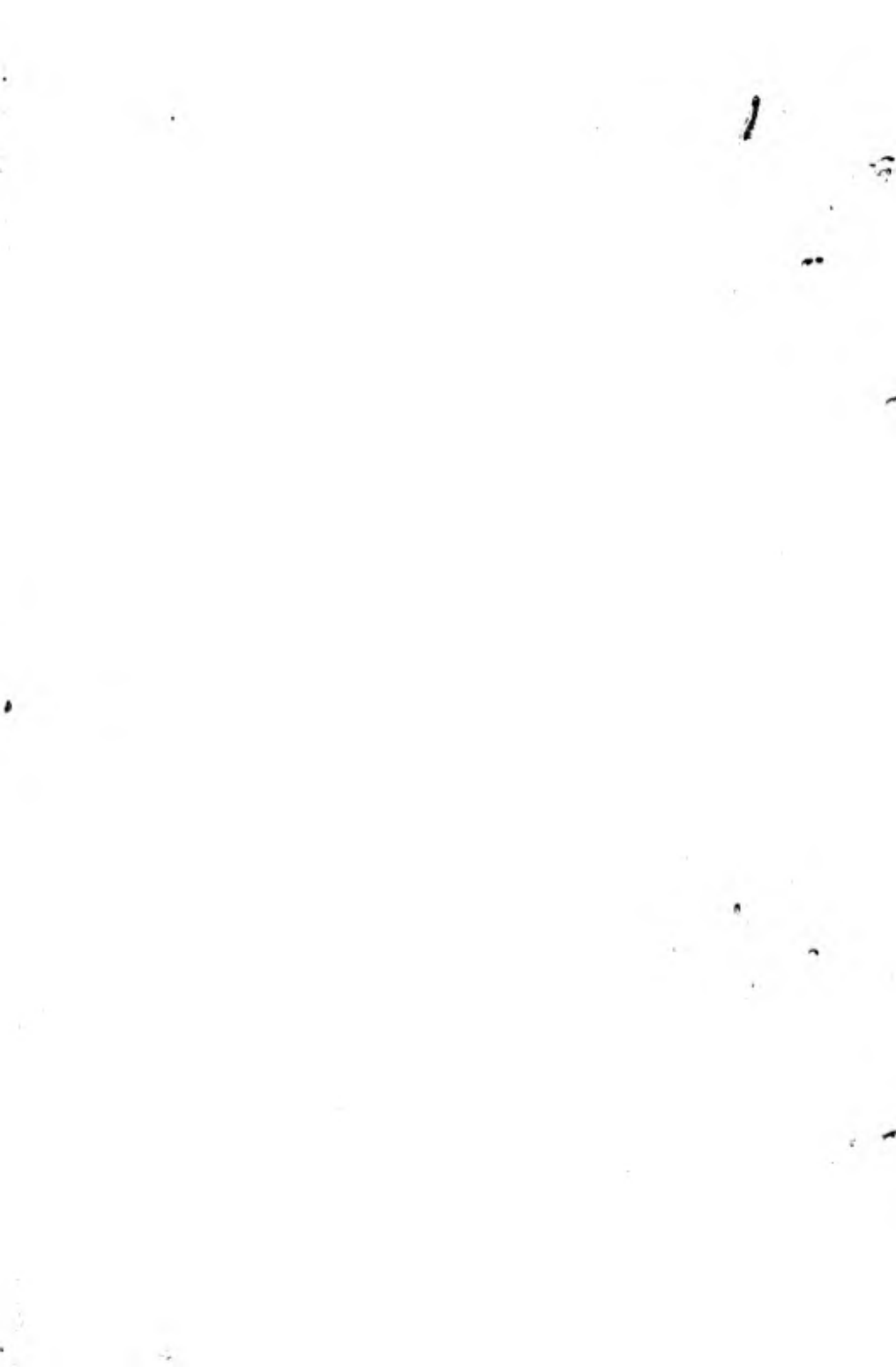
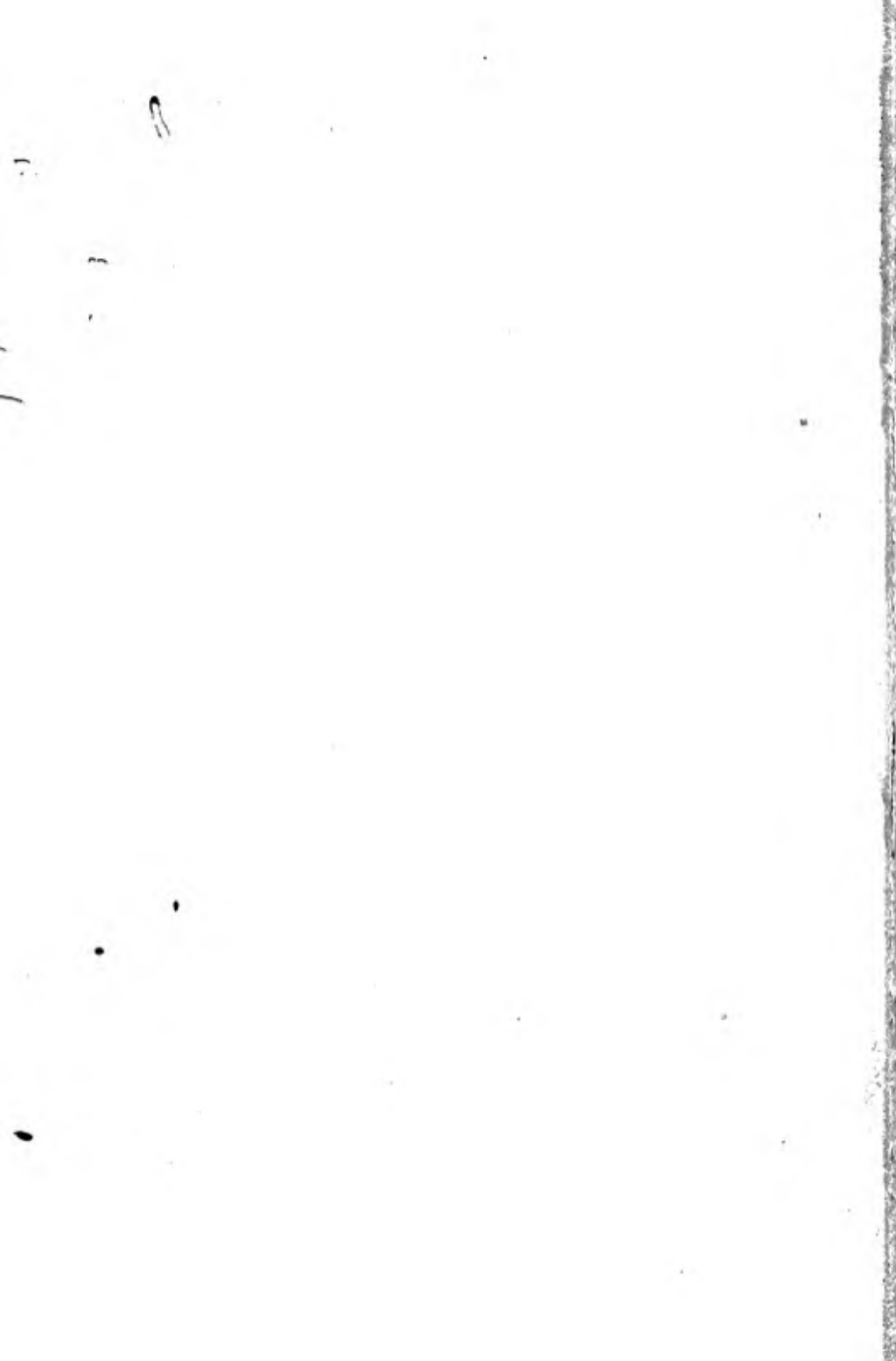




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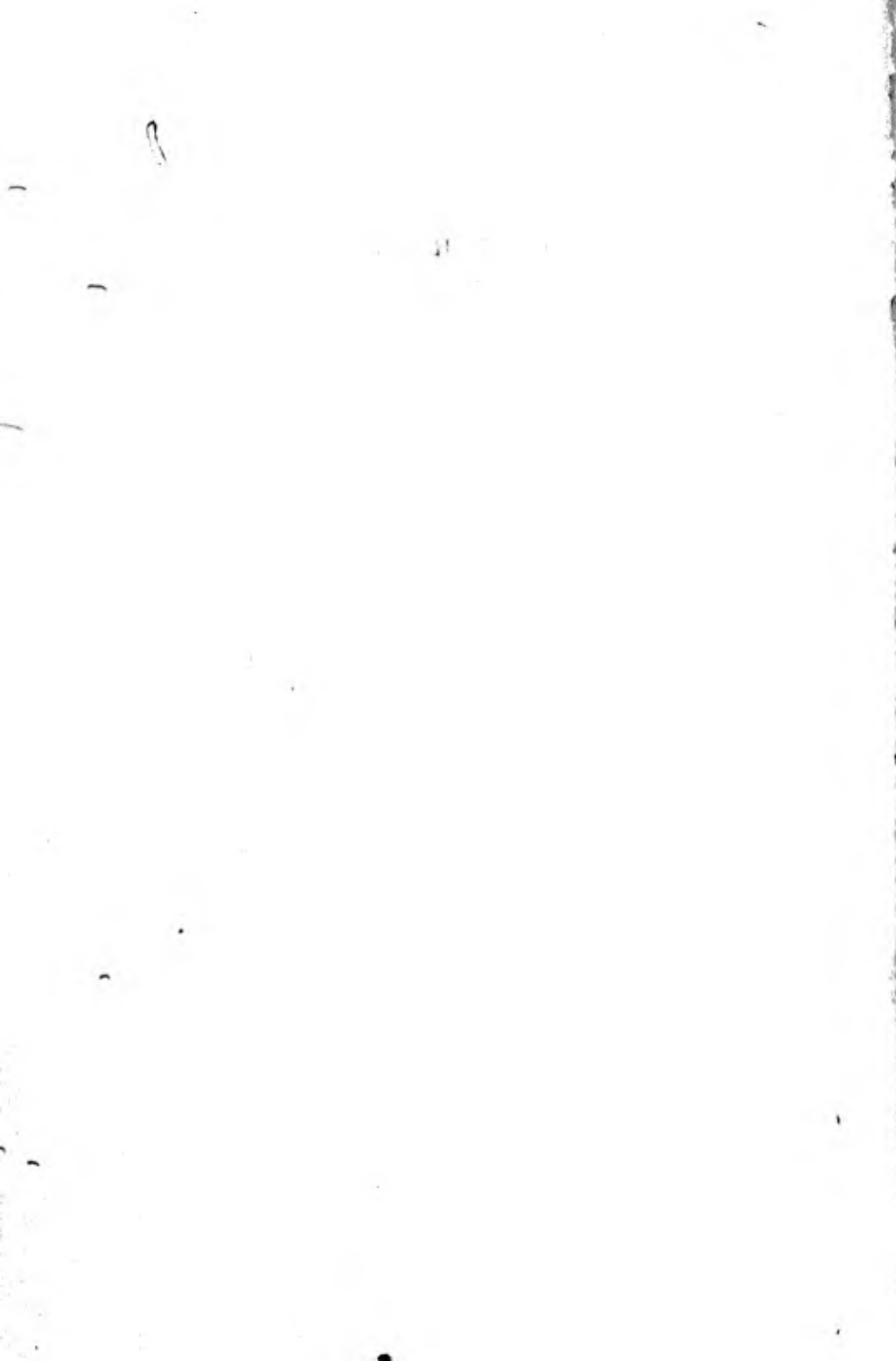




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WORLD HISTORY  
OUR HERITAGE





M. MUJEEB

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# WORLD HISTORY

## Our Heritage

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## FOREWORD

This book has been written for students and teachers as well as for the general reader. Its purpose is not so much to inform as to provoke thought. It is not a narration of events but a series of judgements that should be considered and then accepted or rejected. Teachers who attempt to use this as a textbook will be either delighted or annoyed to find that they have to consult other books at every step in order to amplify and explain the conclusions drawn or to follow up suggested lines of thought. Those interested in obtaining a perspective of the manifold problems of human life will, it is hoped, find this book an incentive to further and more detailed study.

I am grateful to the Union Ministry of Education for providing me with funds for assistance, books and incidental expenses, and to the Indian Council of World Affairs and the management of the Diwan Chand Information Centre for placing at my disposal rooms where I could work. The project of writing the book has enabled me to taste of cooperation and comradeship in intellectual work and has been a deep and stimulating influence. I do not wish to reduce memories to a list of names, and I am sure those whose names I could have given agree with me.

M. MUJEEB

Jamia Millia  
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## INTRODUCTORY

LIFE is a process of continuous change. The food we eat, the dress we wear, the houses we live in, our habits, our ideas, our institutions are the results of adjustments, modifications and transformations that have been taking place in our life. We can accept passively what we find, but acceptance brings little benefit or consolation unless it is the result of an attempt to understand. If we at all desire to improve the circumstances under which we live, or adapt ourselves to them, we must find out how things came to be as they are and discover the causes of events that occurred, the origins and the working of ideas and institutions, the personalities and the forces which combined to produce changes. This is to study history; and the more seriously we study it, the more we shall realise how essential it is for the understanding of the problems of life.

We are not, of course, all interested in the same things. Some of us are interested in science, some in literature and art, some in philosophy or religion, some in politics or sociology. We may study the history necessary for the proper understanding of our particular subject. But as members of a society which has to fulfil its needs, to add to its knowledge and skill, to improve and to develop according to its nature, we must have a sound knowledge of the elements of human history, and of how our own society has followed the general pattern of change and development and been influenced by movements and events outside. We must be able to draw from this knowledge conclusions in regard to what should be done to ensure a rich and peaceful life in the future. India is today planning development on a large scale. It is being found at every step that a proper understanding of the whole situation is essential for success. To become a useful citizen, an Indian must study the history of the world, and within this framework, the history of his own country. The economic or political situation in other countries may be different, but it would also be the result of a historical process, which we have to understand for the sake of intelligent living. If we examine without



haste and prejudice the differences between ourselves and other people, we may find them to be more apparent than real, more the results of accident than nature or design.

Unfortunately, for purposes of teaching, history has become a separate subject. It is not a synthesis of all the sciences that are concerned directly with human life, but is confined largely to the narration of political policies and events. It is not broad-based enough to include all the different influences that govern political policy, or the effects of political events on ideas, social forms, literature and art. History has thus become political history, a record of how small and large human groups grew and became powerful, how they competed or contended with each other, how victory or defeat led to a new distribution of power and wealth. There is no doubt that such political history is of great importance, because most of the great changes in human life have been the results of the use or misuse of power. But the exercise of power for any particular end, such as the conquest of a country, the defeat of a rival, the acquisition of resources, is itself the resultant of moral, social, and economic forces, and unless we have sufficient knowledge of these, political policies, wars and conquests have no meaning.

Other aspects of life are, therefore, being included more and more in the writing of history. This change of attitude has taken place very largely because of the Marxist theory that the means of production are the determining factor in the organisation not only of economic but of social and political life, and that the character and quality of a society will, therefore, depend on who owns or disposes of the land and other natural resources, the equipment and raw material required for producing goods and the agencies and facilities for distributing them. It is not generally agreed that means of production should be given such exclusive attention as Marxists hold to be necessary, but it is recognised that a proper study of the organisation of a people's economy is essential for an understanding of its life and culture.<sup>1</sup> Life must be taken as a whole; neither the producers nor the consumers could exist by themselves, and men, while they

<sup>1</sup> But see Marx-Engels, *Selected Works*, Vol. II, pp. 443 ff and 457 ff. (Foreign Languages Publishing House, Moscow, 1941.)

produce and consume, also strive for ways of self-expression to which the laws of economy may or may not apply.

If we follow this idea of trying to see and to understand the whole of life, we shall realise that the history of any people at any time is a detail of the history of humanity. No matter how closely we study the detail, we shall understand it fully only if we place it in the context of the whole, and appreciate the relationships with the whole which have given significance to the part. It is particularly necessary to remember this when we study Indian history, because there has been a continuous give-and-take between India and the rest of the world. One of the principal aims of this book is to enable the Indian to realise that his country is a part of the world, that if there are differences between the course of events here and elsewhere, there are also many points of resemblance. We must see everything in its proper perspective if we wish to understand, and to build our future on a true appreciation of the past. Not only our history but the history of the whole world is our heritage.

But world history is a subject so vast that if it is related in narrative form, any compass appears to be too small. We have, therefore, philosophies of history which attempt to interpret history to discover laws that may have operated, or the pattern which events seem to have followed. This book is not based on any philosophical theory. Its scale is too small for the histories of different countries or civilisations to be dealt with separately. Here world history has been divided into a convenient number of periods, and to enable the reader to get an idea of all the most important features of civilisation at any particular time, relevant facts have been grouped under three categories: skill, organisation and belief.

These categories do not derive from any particular theory about the nature or character of human life. If we look around us today, we see material goods and the knowledge and skill required to produce them; we find societies organised for the purpose of maintaining themselves and increasing their prosperity and power. We have ideas and beliefs in regard to what is good and desirable, and what is not. These ideas and beliefs determine the function and scope of political, social and economic organisation, the purposes for which material goods should be produced, and the manner in which they should be

them. Farmers, craftsmen, skilled workmen enable a society to maintain its physical existence, and yet organisation can be based on values which place the producing classes at the mercy of the non-producing classes. The ideas and tendencies embodied in the organisation of a society determine not only the social significance but also the standards and the quality of skills. What is an even more important consideration than its influence on production, organisation represents the mechanism evolved by every society for prevention of internal disintegration, for defence against external attack, and for expansion to meet its needs or to propagate the ideas it embodies. For instance, the caste system is supposed to have saved Hindu society from disintegration through internal changes and the corrosive influence of alien ideas of organisation. The democratic ideals of Islam, as assimilated by the Arab society of the seventh century, made expansion essential and inevitable. The nation-states of Europe spread themselves over the world under the impetus of private enterprise and a competitive economy, and they would have destroyed each other if expansion had not been possible. The reasons for taking organisation as the starting point would also be quite sound.

What position should we assign to belief? Man's awareness of his separate identity, his will to live and his conviction that life has meaning and purpose are essential for his existence. How is this awareness, this will, this assurance of meaning and purpose expressed? Modern methods of scientific analysis have reduced man to a mechanism whose reactions are variable but capable of classification, and might ultimately be amenable to control. In the United States, it is widely believed that "personality" can be identified at an early age and developed by direct methods, in the Soviet Union indoctrination is based on the same view of human nature. But unless we decide for ourselves beforehand what man is and what history is to reveal, we should not attempt to reduce beliefs and the results of beliefs to a simple operation of the law of cause and effect, or of mere learning from experience. The forces that have moved mankind cannot be easily defined. Life is the result of an interplay of desires, interests, aspirations, beliefs, and the truth about life cannot be reduced to a formula.

Let us take some examples. We know that self-preservation is one of the basic instincts. But men are willing to risk their lives for truth, for profit, for revenge, for adventure, and this attitude can be characteristic not only of persons but civilisations. We cannot, therefore, lay it down that in particular situations, all men will behave in the same way. Again, we know that organisation can be maintained only if punishments are awarded for breaking laws. But can we on this ground say that men observe a particular way of life or obey laws only because of fear? Men are afraid of loss, injury and death. They desire happiness and success, and survival in some form after death. But only a very prejudiced mind would base all religions on fear and hope. It is a historical fact that belief has inspired aim and purpose, and determined the moral and social values to be achieved. It is equally true that organisation is the expression of the belief that a certain way of life is good.

There is no scientific method of determining how and why a certain thing is believed to be true or a certain pattern of living believed to be good in the first instance. Within the historical period, the fundamentals of every religion and every type of social organisation built on a concept of the good can be traced to some spiritual or intellectual leader or leaders, and the same would be true of the prehistoric ages also. The origin of belief may be the same as that of scientific theories. "The procedure in all branches of science, whether in Newton's theory of gravitation, Maxwell's theory of electromagnetism, Einstein's theory of relativity or the quantum theory of Planck is at root the same. The first step is to guess, by some sort of inspiration, a set of mathematical equations. The second step is to associate the symbols used in the equations with measurable physical quantities."<sup>2</sup> The equations of belief are differently expressed, the quantities with which they are to be associated are not only physical; the inspiration of which belief is the product may begin in curiosity and guesses, but it ends in overwhelming conviction. It is this overwhelming conviction of the truth, beauty and goodness of what is believed that leads to the embodiment of belief in organisation, and to the coordination of all types of skills for the maintenance of a

<sup>2</sup> Fred Hoyle, *The Nature of the Universe*, p. 5.

particular organisation. Logically, therefore, it would be correct to say that human life begins with belief, and in a historical study of human life, belief must come first.

In this book, after a brief outline of the main political events, beliefs have been discussed first. But beliefs cannot be dated. They do not have a beginning or an end which can be fixed, and the beliefs of one period will be found to continue in other periods. We must also remember that all the time things were happening which made some people reflect whether what they believed was true. All the time people with different beliefs were coming into contact with each other, as hunters and food-gatherers in the earliest age, later as traders, warriors, travellers, as friends and as enemies, as rulers and subjects. Beliefs must not, therefore, be regarded as so definite that they can serve as demonstrable explanations for all actions and events. It is the same with organisation. There was a continuous process of change, of adjustment, of learning, borrowing and imitating, with different types of organisation existing peacefully side by side or coming into conflict. Skills have also a way of their own, and we cannot determine their quality or effect very precisely. But for any period, a study of the beliefs, forms of organisation and standards of skill will give us a more intelligible picture of human life as a whole than the narration of events. What is more, it will help to fulfil the purpose of history, which is to make us think, to make us aware of all the good and the evil that men have done, and to strengthen in each of us the desire for a rich and useful life.

## CHAPTER I

### ORIGINS

#### I

WE DO not know which of the accounts of the origin of the world represents the earliest ideas of creation, but they all agree that the whole universe, and our earth in particular, was made out of unorganised matter, or chaos, in some far distant past.

According to the Egyptian legend of creation, "At the beginning of the world there was a waste of water called Nu, and it was the abode of the Great Father....He gave being unto the sun god...Ra, (who) was greater than Nu, from whom he arose....Ra spoke at the beginning of the creation, and bade the earth and the heavens to rise out of the waste of water. In the brightness of his majesty they appeared, and Shu (god of the air) the uplifter, raised Nu (goddess of the firmament) upon high. She formed the vault, which is arched over Seb, the god of earth, who lies prostrate beneath her from where, at the eastern horizon, she is poised upon her toes to where, at the western horizon, bending down with outstretched arms, she rests upon her finger-tips. In the darkness are beheld the stars, which sparkle upon her body and over her great, unwearied limbs."<sup>1</sup>

Babylonian legend traces creation to the slaying of the female dragon Tiamat (the sea), by Bel-Merodach, who "covered the heavens with one part of Tiamat's body and fashioned the earth with the other half. Then he set the moon and the stars in the sky, and afterwards created man. He divided the darkness, separated the heavens from the earth, and then reduced the universe to order."<sup>2</sup>

The accounts of creation in the Rig Veda begin with myths and become progressively intellectual. "Indra measured six

<sup>1</sup> D. A. Mackenzie, *Egyptian Myth and Legend*, pp. 1-2. (Gresham Publishing Co.)

<sup>2</sup> T. G. Pinches, *The Religion of Babylonia and Assyria*, p. 9. (Gresham Publishing Co.)

Broad spaces, from which no existing thing is excluded; he it is who made the wide expanse of the earth and the lofty dome of the sky, even he."<sup>3</sup> "Before the Vedic age had come to a close, an unknown poet, who was one of the world's great thinkers, had risen . . . towards a conception of the World Soul and the First Cause — the Unknown God. He sang of the mysterious beginning of all things."

1. *Non-being then existed not nor being;  
There was no air, nor sky that is beyond it.  
What was concealed? Wherein? In whose protection?  
And was there deep unfathomable water?*
2. *Death then existed not nor life immortal;  
Of neither night nor day was any token.  
By its inherent force the One breathed windless:  
No other thing than that beyond existed.*
3. *Darkness there was at first by darkness hidden;  
Without distinctive marks, this all was water.  
That which, becoming, by the void was covered,  
That one by force of heat came into being.*
4. *Desire entered the One in the beginning:  
It was the earliest seed, of thought the product.  
The sages searching in their hearts with wisdom,  
Found out the bond of being in non-being.*<sup>4</sup>

The Rig Veda also contains the legend of Purusha, by sacrificing whom the gods created the world. "This conception resembles closely the story in Teutonic mythology of the cutting up by the gods of the body of the chaos giant, Ymer; his skull became the sky, his bones the rocks, his blood the sea, and so on. One of the Chinese P'an Ku myths is of a similar character; the world is composed of different parts of his body."<sup>5</sup>

In Judaism, Christianity and Islam, the creator, creation and the purpose of life are logically connected parts of a doctrine that all that exists was created by the will of God.

<sup>3</sup> D. A. Mackenzie, *Indian Myth and Legend*, p. 10.

<sup>4</sup> Radhakrishnan and Moore, *A Source Book of Indian Philosophy*, p. 23.

<sup>5</sup> Mackenzie, *op. cit.*, pp. 89-90.



Modern science does not accept legends and beliefs in regard to creation. What is more important, it does not admit that it is logically necessary to combine theories in regard to creation with beliefs about the purpose of life. Science has its own principles and methods, which are not those of religion or ethics. Its aim is to observe all that can be observed, to deduce laws from observed facts, and then work onwards on the assumption that these laws are true. The function of science is to answer the question "how", not the question "why".

There are scientific theories of how the universe came into existence. About 200 years ago, Buffon put forward the view that our planetary system is the result of a collision between the sun and a star. This was disputed by Laplace, who gave proper scientific form to the idea of the German philosopher Kant, that the sun produced our planetary system "all by itself", a terrific internal explosion, more violent than those occurring inside it periodically, throwing a part of its atmosphere far beyond the present orbits of the planets. In course of time, this giant sphere of gas cooled and coalesced into separate spheres rotating along circular orbits round the sun. This theory, though based on an assumption that was not itself improbable, was mathematically unsound. Another theory put forward was that a star, passing the sun at a sufficiently close distance, caused a tide on the surface of the sun, and pulled out an enormous gaseous filament which later broke up into a number of gaseous spheres. Since this view was propounded, it has been discovered that interstellar space is filled by a mixture of gas and fine dust, possessing the same chemical constitution as the sun and other stars. An astronomer, Weizsacker, has shown that the fine dust originally scattered through the entire region now occupied by the planetary system must have been aggregated into a few big lumps to form the planets, and this could have happened within a period of a hundred million years. Another theory is that "there was once another star moving around the sun that disintegrated with great violence. So great was the explosion that all the remnants were blown a long way away from the sun into space, with the exception of a tiny wisp of gas out of which the earth and the planets have condensed."<sup>6</sup>

\* Fred Hoyle, *The Nature of the Universe*, p. 5.



¶ We cannot say which of the theories given above explains the accident of the world's origin most satisfactorily from the point of view of mathematics, physics and — scientific — commonsense, and to what speculations further researches in the physical sciences will lead us. It was believed so far that the earth, when it first assumed its separate identity as a planet, was a hot sphere of gas. But this is being doubted. So is the assumption that the moon was once a part of the earth, torn away by the gravitational pull of the sun.<sup>7</sup> What happened on the earth after the formation of its crust is also a subject of conflicting theories. Rain and wind have been eroding the surface and continuously piling up sediment; the crust of the earth, however solid it may appear, has changed its form owing to pressure from within, and is in theory elastic. Explanations have to be given when questions arise. What is coal, what is iron, what is petrol? What is the reason for shells and other things being found high up in the mountains when they naturally belong to the bottom of the sea? How is it that fossils are found deep down in the earth when life is possible only on the surface? What is the cause of earthquakes, volcanoes, hot-water springs and other such phenomena? There are theories that explain the origins of all these things, and help us to realise that nothing is stable or static, that the inanimate world is, like the animate, subject to continuous movement and change.

## II

The origin of life is a question on which religious beliefs and science are as much at variance as on the question of creation. Scientists take it for granted that life is self-generated, that it produced itself. How this could have happened can be deduced from geology and biology, and more precisely from two new sciences allied to them, geochemistry and biochemistry. Geochemistry grew up as a result of the search for new metals, such as vanadium, germanium and uranium, and the attempt to solve the problems of their occurrence and distribution. Biochemistry is the application of chemistry to biological problems. It is a science whose function is to discover, and

<sup>7</sup> *Ibid.*, pp. 71-82.

ultimately to imitate the extremely complex operations that we find going on in living organisms.

We can assume that as the earth cooled, a hydrosphere of rivers and seas formed on its surface. In this hydrosphere water and mud were acted upon by the sunlight, and it is here that we must look for the first simple carbon and nitrogen compounds out of which organisms were formed. We must take it that a chemical evolution of organisms preceded the evolution of organic structures. So far we have a little evidence that even biochemical life was absent till about 800 million years ago, but about 300 million years later, life was biochemically what it is now. These figures are rough, and require confirmation from the observations and conclusions of other sciences. But there is no doubt that biochemistry provides a clue to the origin of life.

The energy from the sun which makes plants grow, animals move and men think is absorbed by a substance known as chlorophyll. The process of absorption is known as photosynthesis and is very complicated. It must have begun with organisms even more minute than the viruses, which can be seen now under the electron microscope. They appear as small round bodies, mostly without any internal structure. They are chemical molecules that have, at the same time, the properties of living organisms. They can feed and multiply. We cannot regard them, however, as the most primitive form of life because there are bacteria, known as autotrophic, which can satisfy all the needs themselves, and do not depend for their sustenance on other organisms. The line of development, from one point of view, seems to be from the organism which is self-sufficient to one which absorbs food that passes it, and from this to the organism which goes after its food, like the fish, the reptile and finally man. "The general trend of evolution is away from the purely chemical existence of minute units to the use of increasing organisation, coordination and rationality."<sup>8</sup> Landmarks in this evolution were growth in size, the ability to move, and the development of a physical form or structure which enabled movement and the acquisition and assimilation of food.

<sup>8</sup> J. D. Bernal, *Science in History*, p. 639. (Watts, London, 1954.)

The study of the evolution of different forms of life is the concern of the biologist. We need to note here only the main divisions of biological history. There was first a period, known as the Azoic, in which no life would have been possible. In the next period, the Proterozoic, micro-organisms would have been formed, but since they had no rigid bodies or parts, we do not find any traces of them. In the early Palaeozoic period, there were trilobites and sea-scorpions; and fishes and amphibia populated the swamp forests of the later Palaeozoic. Then nature seems to have had a fit of extravagance. In the Mesozoic period, reptiles of enormous size and hideous aspect, the brontosaurus, the stegosaurus, the tyrannosaurus rex, roamed over the earth for thousands of years. Then they either died out gradually or perished because of some cataclysmic change. Only mammals, which were partially in evidence in the Mesozoic period, survived and they constitute the main feature of the present, the Cainozoic period. Man is the most highly developed type of mammal.

### III

The three geological and biological ages which cover the whole period of human existence are the late Pliocene, the Pleistocene and the Holocene. The Pleistocene began about 550,000 years ago. It includes the four Glacial and Interglacial Ages, and the age which the archaeologist calls Palaeolithic. For its material during this vast expanse of time, history has to depend on other sciences: geology, biology, archaeology, anthropology. Geology helps us to determine the ages into which pre-history can be divided through a study of the strata in which the oldest remains are found; biology gives us glimpses into the physical evolution of man; archaeology deals with antiquities, with products of ancient industry and art, from which we can reconstruct human life and culture of the times when there were no written records. Anthropology is the study of man, of primitive social institutions, belief and ritual. But all these sciences together give us only an incomplete and hazy picture.

Traces of the earliest types of hominids or near-men and of men are being found at different places as the search for them proceeds. Each fresh discovery adds to our knowledge.

and sometimes views held about a process of development have to be reconsidered and revised. Investigations in South and South-east Africa have yielded rich results, and it is possible that the earliest remains may be found there. These remains will probably be of hominids or near-men, such as the Java Man (*Pithecanthropus erectus*) is believed to be. He made very crude implements, but these were of stone, and a question has been raised whether the first implements were of bone or of stone. It may be that we shall discover a type of hominid, making bone implements, which preceded the Java Man. The Peking Man (*Sinanthropus pekinensis*) who seems to have been able to make fire has also to be classed as a hominid. Even the Neanderthaler Man, a type named after the place in West Germany where his remains have been found, who lived during the Second Interglacial Age, is not regarded as full man, though as a maker of tools he appears quite advanced. In our present state of knowledge, the Grimaldi and Cro-magnon men, who appear after the last Ice Age, about 25,000 years ago, are the first types who can be regarded as definitely human. Subsequent history tells us of primitive and advanced cultures existing at the same time. It is possible that the Peking Man learnt to make fire and to fashion his crude tools from true men whose traces we have not yet been able to discover. The Grimaldi and the Cro-magnon wandered into Spain and southern France from Africa and West Asia. They seem to have been physically weaker but mentally far superior to the Neanderthalers, whom they dispossessed and destroyed. There may have been similar wanderings of true men eastwards. Skeletons of a very primitive type of man have lately been discovered on Mt. Carmel in Palestine in a cave adjacent to another containing the graves of a human community contemporary with this primitive type and akin to the Cro-magnons.<sup>9</sup>

We shall, it seems, continue to have doubts in our minds as to when human history begins until we can determine what we mean by "man." The tendency among biologists and among those who look to biology for a definition of man is to regard the development of certain parts of the brain as the criterion.

<sup>9</sup> Gertrude Rachel Levy, *The Gate of Horn*, pp. 6-7. (Faber and Faber, London, 1948.)

As there is no likelihood of a brain being found intact, its capacity is deduced from jaw-bones and pieces of skulls. Another method is to draw conclusions in regard to the capacity to think, to reason and to coordinate and communicate impressions and experiences from the artifacts of the different archaeological periods. The third course, which is not given the consideration due to it because the scientific principle of observation completely dominates our minds, is to search for a definition of man based on a study of mankind through the ages. We would then, perhaps, agree that the distinctive feature of man is not speech, not the ability to make things, but an inner urge to apprehend and synthesise all that he sees, hears, feels and to lay down laws for himself that would make his life accord with this synthesis. This would be the view that man is made human by belief.

This view should not ignore science or prevent us from taking full advantage of all that we can learn from biology and archaeology. If the discoveries made by these sciences enable us to begin human history a few thousand or a hundred thousand years earlier, our criterion would not be affected. The biological data we possess at the moment seem to indicate that the Java Man, the Peking Man and the Neanderthals were not the direct ancestors of "man," that "man" is a species whose development may have been parallel to theirs. The archaeological data might be regarded as indicating that the life of those who produced the artifacts associated with the Peking Man and subsequent culture periods was organised enough to be considered human. Or we might regard the archaeological evidence as showing that species of "hominids" or near-men appeared, developed a culture of which the artifacts we have discovered may be considered the highest achievement, and then either died out or were destroyed by men with a higher intelligence.

#### IV

Man was first a food-gatherer. Archaeologists divide the vast extent of time when man gathered and could not grow his food and when his tools were almost all of stone, into Lower, Middle and Upper Palaeolithic, depending on the stratum in

which the record is found, and into "cultures" on the basis of the artifacts discovered. It would be unhistorical to talk at this time of countries and peoples, and the "cultures" of archaeologists have no relation with the subsequent culture of the same place or region.<sup>10</sup> They are stages in development, fixed after study of the artifacts. Their duration cannot be fixed; one culture-period in one country or region, for instance, may occur earlier or later than in another region, in accordance with the speed and accidents of development.

Some stone implements, such as the hand-axe, the flake and the blade, which are found in widely separated areas are so similar in shape that it is thought that the art of making them was not evolved independently in different times and at different places, but was spread from some original centre. The hand-axe is found in a continuous area which includes a part of India, south-west Asia, east, north and part of South Africa, and southern and western Europe. The eastern and south-eastern parts of Asia seem to form a separate cultural province. Even though man was ill-equipped in every way in the Old Stone Age, culture could be diffused and cultural development follow a common sequence.

## V

Man's skill has been evident from the very beginning. We can look upon it, as scientists generally do, as an attempt to make up for the insufficiency of his natural equipment. Man was a hunter without tooth and claw, a digger without nails, a carnivorous animal whose digestive system could not easily assimilate raw meat. His body lacked the protection of natural hair, and he could not, like the rodents, make a shelter for himself in the earth. So he was forced by necessity to fashion tools. We can also regard the making of tools as the result of an inner urge to get from nature the material he required to live a life which seemed to him good. The good life was not a

<sup>10</sup> Beginning with the oldest, they have been named Pre-Chellean, Proto-Chellean, Chellean, Acheulian and Stellenbosch, Levalloisian, Mousterian, Aurignacian, Solutrean and Still Boy, Magdalenian, and Azillian (also called Tardenoisian and Capsian), after the names of places where they have been discovered.



matter of choice. Man is so constituted that it is a necessity. At the time when the stones lying around seemed to be the only raw material he could draw upon, he selected for his use stones fashioned by accident into the shape he desired. But he could not have done so without concepts of "cutting", "piercing", "edge", "sharpness", and these concepts must be older than the tools, an integral part of man's mental equipment.<sup>11</sup> It is impossible for us now to pick out the first "selected" tools. The earliest "made" tools were pebbles so broken as to produce sharp edges. Remains of this culture, which is called the "pebble-tool" culture, have been found among lower Pleistocene deposits at Olduvai, in Tanganyika, and these artifacts along with others found in only slightly more recent deposits in Asia and Western Europe show that tool-making was no longer occasional but served permanent needs.

The tools of the Peking Man, found in the cave deposits of Choukoutien, to which the Pre-Soan<sup>12</sup> industries of West Pakistan and of the Narbada valley bear a close resemblance, are naturally-fractured bits of stone that were adapted to requirements, no attempt being made to give them a standardised shape. Later deposits show that more suitable raw material had been discovered.

From now on archaeological data have both a general and special character. Their generality consists in the use of techniques for making "core" and "flake" tools, and in the prevalence of what is known as the hand-axe. Core tools are those stones which have been made serviceable by the surface being chipped off till a sufficiently fine cutting and scraping edge was formed. Flake tools are the result of the discovery that if the bits were broken off properly, they could themselves be used for different purposes. The hand-axe was made by flaking a pebble or stone slab round the edge from both sides so as to produce a pointed, tongue-shaped tool with a sharp edge. It was the first standardised instrument. It was

<sup>11</sup> "There is a further implication in the existence of standardised implements, namely, the presence of the idea of an *implement in the mind of the maker before setting out to make it* . . . " J. D. Bernal, *Science in History*, p. 40.

<sup>12</sup> The Soan is a tributary of the Indus in the Potwar region of West Punjab.

not hafted, nor was it an axe in the true sense. It was probably used mainly as a hunter's knife, but may have served also for cutting wood or for digging up grubs and roots. It was the predominant tool of a cultural tradition which not only spread from South India and Africa to South England over nearly one-fifth of the land area of the world, but persisted for more than a hundred thousand years. The standard hand-axe was not the invention of one person, but was the end-product of the skill of successive generations, who not only copied but improved upon the products of their predecessors. Implements from successive deposits in any one region not only show, on the whole, a gradual refinement in workmanship but a comparative uniformity over a vast area, which is most remarkable. We notice also the impress of an artistic sense in the selection of some of the raw material and in an attention to craftsmanship not required by the function the tool was to perform.

The Stone Age is so called because, with a few exceptions, the archaeological data consist of stone implements. The quality of these gradually improves. In the Upper Palaeolithic, which just preceded the Neolithic Age, and the duration of which has been reckoned to be about 80,000 years, new techniques begin to be employed. Instead of tools made directly, we have tools for making tools; cores have been found on which the flakes to be made had been marked out, and a large variety of stones is used corresponding to the purpose the tool was to serve. It is possible that wood, being more pliable than stone, was used from the very earliest times, specially for digging, but no specimens of wooden tools have survived. In the Upper Palaeolithic, tools of wood, bone, antler, ivory and shell provide sure evidence that by this time men had learnt to grind, polish and perforate. The rotary motion necessary for perforation must have been produced either with the bow-drill or the palms of the hand. Two or more distinct pieces of material could be firmly joined together, which in the language of technology is called "construction." Needles began to be made for sewing together skins for tents and also, perhaps, garments. Fish-hooks of bone, fish-spears, nets with floats and boats had begun to be made even earlier; in the Upper Palaeolithic, spears and spear-throwers began to be used for hunting game. Perforated shells and ivory nose-plugs



and bracelets were made for ornaments; and to decorate themselves, their weapons or their cave walls, men collected earths, amber and jet. The very earliest artifacts have been found in river drifts and terraces, the later in caves and sometimes in graves. In the Upper Palaeolithic, dwellings began to be constructed. In Siberia and South Russia evidence has been brought to light of dwellings made by roofing over an excavated area with skins supported on a framework of antlers. Similar devices would have been used elsewhere in accordance with the material available in the particular region.

## VI

The artifacts which archaeologists consider their data, are called "industries" if they are assemblages containing particular types of tools, and "cultures" if assemblages of tools of a particular type recur. Distinct but contemporary "cultures" represent distinct societies or, as the archaeologists say, "Cultures are peoples." We have to deduce the organisation of life at a particular period from the "cultures" representing that period.

The first economy was a food-gathering economy. But was the food-gathering unit the individual or the family or the clan? Nowadays we teach every young man to help himself, and it is assumed that the young man has a family to which he looks for support, and which will, in its turn, derive benefit from any success which he achieves. We are so used to thinking in terms of individual and family that it seems hardly conceivable that at any time the family should not have been the basic unit of human society. But it is extremely unlikely that the family was there from the beginning.

We have no means now, apart from artifacts, of reconstructing the social life of Palaeolithic Man. So we reason backward from (a) the social organisation of primitive tribes still extant whose skill and knowledge have not developed beyond making stone and wood implements and who are still food-gatherers, and (b) institutions and beliefs of the most ancient Egypt, the earliest society of which we have knowledge adequate enough to provide a basis for reasonable guesswork. The laws and customs of primitive tribes still existing are not

simple, as the people themselves appear to be, compared with civilised groups, but quite complicated. This may be due to centuries of isolation, or it may be that the evolution of social ideas has itself been from the complex to the simple and not, as appears more plausible, from the simple to the complex. Primitive man would not have possessed the power of analysis necessary to distinguish between phenomena, experience, cause and effect, and his social organisation would have been made complex by this inability to distinguish or classify. For this reason, the social organisation of primitive tribes today is inseparable from tribal belief and personal conduct from tribal custom.

The social unit in the food-gathering stage must have been what sociologists call the clan, and within the clan there may have been some customary division of labour between the males and the females, and some accidental and informal division between those who could do one type of communal work better than others. Cooperation would have been prescribed, customary, obligatory. There would have been no marriage and no family life as distinct from the life of the clan. Food-gathering would necessitate continuous movement. This would bring different clans together, and generally there would be conflict. Since no possession of territory or wealth would be involved, such conflicts would be little more than skirmishes between clans to frighten each other off. The area over which a clan roamed would have been delimited by experience enshrined in appropriate prohibitions. But the exigencies of an increasing population or a depleted food supply would also have forced it to disregard such customary limitations on movement.

The gradually improving quality and increasing variety of artifacts make it reasonable for us to assume that even if tool-making was a function of the whole clan, those who were better at it than others would have been looked upon as specialists. Since tools for making tools are a feature of the Upper Palaeolithic, the individual artifact would originally have been a happy accident brought about by well directed and auspicious ritual. The food-gathering, the eating, the resting and the recreation would have been activities in which the clan as a whole participated. The rock paintings in the

caves of the Upper Palaeolithic period, in Africa, in France and Spain indicate that they served as a unifying and integrating force.

Did the earliest men whose artifacts are evidence of their skill and of the organisation, however elementary, which would have been necessary to maintain and perpetuate these standards of skill, possess the gift of speech? If they did, when were they endowed with it? The vocal organs of the great apes are exactly the same as those of men, yet the apes do not have a language.<sup>13</sup> Arab thinkers distinguish man from the animals on the ground of his ability to speak, and it is a sound reason. But when was this distinction created? The type represented by the Peking Man could make fire, and since man discovered how to make fire, he has been able to give form to his life. Was the capacity to express his thoughts and emotions in speech developed about the same time? We cannot answer the question with certainty, but the development of skill shown by the archaeological record would have been impossible unless knowledge could be communicated and the method of trial and error replaced by the method of reasoning. Organisation, too, could be only occasional and temporary unless orally communicated do's and don'ts took the place of instinctive individual and group reactions. We must assume, therefore, that organisation must have developed, and itself been maintained by language, that society and speech came into existence together and grew together.

## VII

It is not possible to describe with any confidence the beliefs of people who have left behind no written record. Archaeologists deduce beliefs from material remains, as they judge skill by examining artifacts. But these are details that only give us glimpses of what might have been or provide grounds for conjecture. The Neanderthals buried their dead in a flexed posture in pits dug for the purpose, and possibly put some food and other necessities by the side of the body. This would mean that they believed in some form of life after death. Some peoples whose culture belongs to later periods buried

<sup>13</sup> *Encyclopaedia of the Social Sciences*. Ape Man. Vol. X, p. 72. (Macmillan Co., N.Y.)

their dead in an extended or contracted position, and at Tevieg, an island on the coast of Morbihan, in France, skeletons have been found buried under heaps of shellfish bones — called middens — in a contracted attitude, wearing crowns of red-deer antlers, protected by stones on edge and covered with boulders.<sup>14</sup> Such burial would no doubt have been accompanied by some ceremonial, must have been part of a whole system of belief which, if we are to draw conclusions from studies of the most primitive societies of today, must have comprehended every aspect of life — food, occupation, relationship of the sexes, community life and ritual. The Palaeolithic cave paintings, which are so striking as works of art, must have had a religious and ritualistic origin. They consist of (a) abstract signs, (b) animal forms, and (c) human representations. The signs range from "macaroni" or meanders<sup>15</sup> traced with rod or finger upon the clay which coated the ceilings to the elaborate "tectiforms",<sup>16</sup> considered to be huts or traps, painted in red or black, grouped upon the wall face or laid upon the body of a beast. These signs had a magical intent, which may have been a desire for multiplication of the animals they were painted upon or their destruction. The aim in portraying animals was perhaps the establishment of a relationship in which human and animal life would act and react upon each other, and was of the nature of religion.<sup>17</sup> This relationship was a kind of attunement, a harmonisation. It must, therefore, have been felt that absolute exactitude in representation was essential. This explains the perfection of form that was attained, and beyond form, the character, the movement, the very life that was caught by the painter's eye and reproduced as a vision in the darkness of the cave.

Men and women are introduced into cave art solely in the act of ritual, as dancers masked in animal forms. Masked dances are still practised by all primitives, and the aim is an exaltation that leads to communion with the deity that is worshipped.

<sup>14</sup> V. Gordon Childe, *Dawn of European Civilisation*, pp. 6-7.

<sup>15</sup> Patterns made by lines winding in and out and crossing one another rectilinearly.

<sup>16</sup> Roof-shaped patterns.

<sup>17</sup> Levy, *op. cit.*, p. 20.

The burial customs of the primeval cave-dwellers reveal a desire to preserve the actual corpse of the kinsman in their midst. Later, ideas change, and the dead are buried apart. Cave burial by degrees becomes tomb burial. But the bond between the living and the dead is not broken. All the needs, all the actions, all the desires of men, the world of trees and animals, of darkness and light, of birth and life and death, remain an organic, indivisible whole.

## CHAPTER II

### THE NEOLITHIC AGE

#### I

WE CAN give only very rough estimates of the time men took in different parts of the inhabited world to develop to the extent that is shown by the improvement in tools. After the appearance of the first true men, about 25,000 years ago, the rate of progress, as revealed in the quality and the variety of the tools, was much faster than before; there would have been much more of intercourse and warfare, of the learning of skills and the plundering of the products of skill. But men were still food-gatherers, living on what they could provide for themselves from day-to-day. And the longer they lived in a particular region, the more difficult they must have found it to feed themselves.

"Cultures" in those regions which were both warm and fertile would have matured earlier than "cultures" of those regions where life was hard. One of the reasons for the development of what is known as Neolithic economy was the desiccation of the Iranian plateau and of West Asia, and there is good reason to believe that this economy became prevalent in ever-widening circles westwards and northwards.<sup>1</sup> The earliest Neolithic cultures discovered are in Palestine, the Iranian plateau, on the western edge of the Nile delta, and the north coast of Africa. These are variously dated, specially because some, like those of northern Egypt, seem to have a fairly long background of development; most scholars do not go further back than 4300 B.C. for the dating of the earliest settlements excavated, though botanists think that the cereals found at Jarmo in Kurdistan reveal a stage in the cultivation of cereals that can be dated back to 4750 B.C. Neolithic cultures of the Aegean Archipelago, Crete, Greece, the Balkans, the Danube valley, Italy, western and north-western Europe are of a progressively later date and suggest, as already stated,

<sup>1</sup> Henry Frankfort, *The Birth of Civilisation in the Near East*, pp. 34-37.

a slow migration in several directions of peoples with the typical Neolithic economy and skills. Neolithic sites have been discovered also in Armenia, Transcaucasia, Baluchistan, Turkestan and Siberia. The character of the cultures excavated at various sites in the Deccan and central India is uncertain, and they cannot be positively identified as Neolithic. Implements of the Neolithic type but uncertain date have been found in many parts of China. The Yang-shao culture, characterised by the absence of metal and the presence of painted pottery suggesting that of western Asia, existed in Honan and the neighbouring provinces of northern China about 2000 B.C. A black pottery culture followed, to be succeeded in its turn, shortly after 1400 B.C., by the rich culture of the Shang dynasty and the first written documents. In the western province of Kansu, interesting but undated archaeological remains, with some suggestions of western influences, have been ascribed to the Neolithic and the later Bronze Age.

A series of prehistoric cultures has been discovered in Indo-China. The earliest belong to the third millennium B.C. The typically Neolithic is represented by the Somrong-Sen culture, which spread through all parts of Indo-China in the second millennium B.C., and lasted till about 500 B.C. Remains of cultures similar to those of Indo-China are reported to have been discovered in Burma and the Malay Peninsula.

North and South America were peopled by migrants from Asia who must have crossed the Bering Strait into Alaska and slowly moved southwards. There are some who hold the view that there was migration across the Pacific. The "Indians" of the American continents never passed beyond the Neolithic stage. The fact that they had no cereals cultivated in the Old World and no domesticated animals of the Old World except the dog is taken as indicating that their cultural development was altogether independent.

The main features of the economy of what is known as the Neolithic period are that man began to produce food by means of cultivation and that he domesticated animals. As hunters, men had been studying the habits of animals. The domestication of the goat, the sheep, the cow and the pig would not have involved much mental effort once the idea had been accepted that animals should be kept and allowed to multiply, so as



to become a permanent source of food supply. The fact of germination would not have been a secret to those habitually digging the ground for soft roots and bulbs, and wild cereals would have suggested themselves as possible food when other sources of food supply became inadequate. Here, again, it is the idea of cultivation that is new, and it is this idea which has to be explained and understood.

What induced men to accept the habits of settled life, of the production of food, of the acquisition of that degree of skill which is evident from the weapons, the tools, the pottery of this period? What created the need to search for raw materials which led to the discovery of metals and the development of the science of metallurgy? From whom came the demand for luxury goods which laid the foundations of regular trade? We have the option of adhering strictly to existing material evidence and deducing what we can from finds. We can treat great discoveries as accidents, and leave out of account the thinking and struggling human mind. We can also join what are now loose ends by logically connecting the beginnings of the urge towards settled life with the end result; we can say that the impossibility of continuing the same way of life once the limits of a food-gathering economy had been reached was connected organically with the development that followed, with the appearance of the temple-city and the benefactor-king of the earliest civilisation. The change in belief and organisation may then become apparent and explain the change in economy.

## II

The beliefs of men of the Upper Palaeolithic period and the transformations of these beliefs have been described on the basis of their art, and that is as far as reasonable guess work can take us. It may have been possible to make further deductions from finds in graves and burial mounds. But so far no series of continuous remains covering the whole transition period from the food-gathering to the food-producing economy has been recognised,<sup>2</sup> and we have to think backwards from evidence that is available in the earliest written documents and the beliefs of primitive tribes of our own days.

<sup>2</sup> *Ibid.*, pp. 34-35.



We must begin with the concept of *Attunement*. "In the articulate religious systems of the states which were developed out of the Stone Age village communities, a young god dies and is reborn with the year's flowering and decay, and is invariably said to have introduced the knowledge of agriculture.... This was to be the culmination of the Stone Age religion in which, by ritual attunement to the rhythm of seasonal change, man shared with divinity the responsibility for its maintenance, so that the ceremonies first introduced to guide the birth and death of the hunter's quarry were replaced in natural succession by those considered necessary to assist the New Year to be born, the very sun to rise, the harvest to be cut down."<sup>3</sup> The second concept is that of *Death*. A study of animism among the primitive tribes today warrants the conclusion that "hitherto no people has been met with which does not believe in the existence and survival of human souls, which does not admit the possibility of their intervention in the affairs of the living, and which does not seek to enter into relations with them by processes which are everywhere closely analogous, either by offering to them anything of which they were fond during their lifetime or by applying to them the methods resorted to by sorcery in order to avert or to control superhuman powers."<sup>4</sup> "Animism attributes to all living beings, and even to a great many inanimate objects, a mental equipment which differs from man's own merely in the degree of activity and power."<sup>5</sup> Deference to the presumed wishes and commands of the souls of the dead and of the spirits residing or embodied in material objects acquired great importance because of the natural calamities with which men were often visited, such as droughts, storms, floods, diseases, and which impressed upon the imagination the uncertainty and insecurity of life. *Calamity* is thus the third concept which must have moulded the attitude of mankind. Calamity could be guarded against if benevolent spirits were kept in good humour, if through sacrifice, prayer, and homage the higher powers could be propitiated. This brings us to the fourth concept, that of *Cause and Effect*. To us the association of

<sup>3</sup> Levy, *op. cit.*, pp. 86-87.

<sup>4</sup> *Encyclopaedia of Religion and Ethics*, Art. Animism.

<sup>5</sup> *Ibid.*

cause and effect, as made by the primitive mind, appears irrational, but there can be no doubt that men put their trust in magic, in evocation and incantation because of the concept of the law of cause and effect, and resort to magical means became an integral part of belief and practice. There being no escape from death, calamity and the operation of what were supposed to be laws of cause and effect, men would have felt themselves to be completely under the rule of *Necessity*. They *had* to believe what they believed, they *had* to practise all that they practised. This was the fifth concept. The sixth was *Power*. Men bowed before those who interpreted the law of necessity for their benefit—the gods, the priests, the chiefs and kings. These were possessors of power, which is called “mana” by the primitive tribes of the Pacific region, believed to be something which comes as a supernatural endowment. The possessors of power or “mana” could influence the unknown and mysterious forces that brought good or evil as they thought fit. Subservience to them was the only means of achieving all the security that was possible or conceivable.

Amulets, figurines, ritual objects, modes of burial provide the only positive evidences of belief that we have during the Neolithic period. We do not know what names were given to the deities that were worshipped, and what the ritual was of this worship. Sacrifices and offerings would be made to the deities by the group as a whole and by individuals, and would take up much time and attention. Customs, specially those regarding the consecration of authority, whether of the head of the tribe, clan or family, rites connected with marriage, birth, death, festivals and fertility would be derived from the general or special command of the deity as interpreted by the priests or “Shamans” and, along with the daily routine of work, would have served to regulate personal and group life in all its aspects.

One change that must have come about, though we have no direct evidence of it, would be in the beliefs regarding the status of women and the purpose of marriage. Anthropologists and sociologists are not agreed as to whether matriarchy was ever universal. But if we correlate the divine order with the human, the absence of a male deity among the Neolithic peoples would imply at least that complete authority was not vested

in the oldest male members of the family, or that the family itself was not recognised as possessing a separate identity. The practice of agriculture and of animal husbandry, the development of skills and the gradual increase in population probably led to an ideological splitting up of the clan into families, and to male dominance within the family, which became an institution with its own religious sanctions.

### III

It is more difficult to form a clear picture of organisation during the Palaeolithic and Neolithic periods than of religious beliefs. But we may be certain that men were social animals, and group life, whatever the sphere, was not built out of accidental or occasional cooperation of individuals or families for specific purposes, but on an entirely religious conception of life as a whole, comprehending every detail of activity. As already stated, there were many "cultures" and many "peoples", and their development would have followed a pattern depending on geographical location, favourable and unfavourable accidents, temperament and type of leadership. Some "peoples" would have died out, some stagnated in comparative isolation, some would have gone down in the struggle for survival and been absorbed by stronger neighbours, and some would have grown in such a way as to carry civilisation forward. It is the transformations in the social organisation of this last type which are relevant to our purpose and which it is necessary to understand.

There is a view that the tribe was the original form of association, not the clan, and the predominant quality of the association was political, not religious.\* Whether this view may be tenable or not, the fate of every unit, "people", tribe or clan would have depended largely on the character of the leadership. Among the primitive tribes of today we see authority divided among chiefs, those charged with the duty of supervising or conducting ritual observances and enforcing sanctions (or taboos), and those possessed by the spirits and able to perform rites and dances and sing songs at the religious

\* Sir A. Keith, *A New Theory of Human Evolution*. (Watts, London, 1948.)

ceremonies. For any type of leadership or distinction, the appropriate "mana" generally passes from father to son. But prestige could also be acquired, or become exceptionally high because of some outstanding act of service performed. In the traditions of primitive tribes as well as in the mythology of the world, we have records of acts which make a person into a hero. There is the hero who teaches men how to make fire, there is the Lord Divine Peasant of China, said to have been the first to teach people how to till the soil and use the plough, there is the Egyptian Osiris who, in death, identifies himself with the earth and recurrent life. We may take these heroes as symbolic of the leadership which, all at once or gradually, introduced settled life, domestication of animals and agriculture, and finally established the temple-city.

Side by side with those who earned the gratitude of the tribe through leadership in the arts of peace were those whose exceptional strength and courage saved it from wild animals and human enemies, for we must assume a constant conflict between the settled food-producers and the still wandering food-gatherers. The Neolithic settlement has a protective palisade or a rampart or a ditch around it, or it is built on a lake. No doubt defence, like the gathering or production of food, would have been the duty of every member of the tribe, but the more land there was to save, the greater would have been the need for constant attention to defence; or, the emptier the store-house, the greater would have been the inclination to rob neighbours. Those who made the greatest contribution to defence or attack would have made the largest demands on the tribe in their own interest. They must have had a gradually diminishing share in production and a gradually increasing share in the products. We know of "corn kings" who were the central figures at certain fertility rites. They became divine kings. They must also have been heroes, and there must have grown up around them supporting ranks of warriors who were the first class of non-producing consumers. They must have imposed upon their society an economy in which a surplus had to be produced, in which standards of production had to be raised in order to meet the demand for better goods, and raw material brought from far distances and luxuries procured even at great cost and risk. Here we have,

perhaps, the principal reasons for the economic changes of the Neolithic period.

The chief or chiefs, the warriors, the priests, all possessing the indispensable "mana," all active in their own spheres, which together embraced the whole life of the group, must have become a compelling and transforming force. The material remains we excavate are evidences of advance in various types of skills. They do not indicate the effect on men's minds of the constant danger in which they lived and the pressure under which improvement and advance in technique, division of labour and cooperation would have been gradually achieved. The women of the clan, the farmers, the potters, the tool-makers, the weavers, all those artisans who are the producers supporting the economy of the temple-city which we find growing up later are already subject to a hierarchy and tradition. This subjection would not be something new, but the gradual result of a transformation which necessarily led to the creation of the temple-city, to the organisation of its religious and political hierarchy and its particular economy.

The diffusion of Neolithic culture has already been referred to in a world context. The other aspect of this diffusion is contact and conflict between neighbouring communities, producing reactions that spread over a wider and wider area, like ripples in a pool when a stone has been thrown into it. There are many evidences of fairly far-flung trade relationships, but it is doubtful whether peaceful intercourse by itself would have led to the transformations that took place. If it did not, we have to consider conflict as the other agency for producing change, and assume that it had a decisive effect on the organisation of Neolithic communities. The course of subsequent history is perhaps the strongest argument for the German economist Sombart's view that "In the beginning was the army."

#### IV

The basic discoveries of the Neolithic period in the sphere of food production are the cultivation of plants and the domestication of animals, and in the industries pottery and weaving. These developments are not, of course, to be considered by

themselves, but in the context of man's struggle against nature and man's struggle against man. It was almost as necessary to apply skill to the production of weapons and multipurpose implements as it was to the provision of food, and lack of skill in one field as in the other would expose a Neolithic community to the risk of annihilation. For a better appreciation of the development of skill, however, we shall consider its application to the production of food, to the construction of the dwelling and other necessary structures, to clothing, to pottery and other industries, and to implements and weapons.

Agriculture probably began as plot cultivation with a wooden hoe, and is supposed to have been part of the domestic duties of women. It must have been practised in this way for a considerable time, along with hunting and food-gathering. The transition from a food-gathering to a food-producing economy took much longer in Europe than it did in the Near East, where the climate and soil facilitated the change. The introduction of the plough, which enabled large plots of land to be brought under cultivation, must have coincided with a social change which made agriculture the business of men, and with the utilisation of draught animals for ploughing. Once agriculture had been taken up, the variety of cereals cultivated increased rapidly. "Every single food plant of importance has been discovered by some nameless barbarian society."<sup>7</sup>

For agriculture, an adequate and reliable source of irrigation is essential. There are still tribes in Iraq and upper Egypt for whom agriculture consists in planting seeds in the fresh alluvial mud left by the Euphrates and the Nile after the inundation, and probably this method was among the first to be adopted. But the increase in population among the Neolithic communities of Mesopotamia and Egypt would have forced them to devise means of artificial irrigation and led to their settlement in areas where the water of the river could be channelled off and made into a permanent source of irrigation for a larger tract of land.

Better or appropriate implements would have had to be devised in conformity with the increase in the scale of work. The first plough was wooden; the first scythe consisted of

<sup>7</sup> V. Gordon Childe, *What Happened in History*, p. 50.



flint teeth set in a curved and grooved piece of wood or bone. The inadequacy of these tools would have been one of the inducements to search for more serviceable material out of which to make them.

The first animals to be domesticated were sheep, goats, cattle and pigs; in Europe, it seems, the dog was the first to cast in his lot with man. The ass was probably the first beast of burden. The horse was about the last to be tamed.

The institution of a settled life and the practice of agriculture gave a new significance to the dwelling-house. The structure depended on the material available, and on the type of climate. But we must not think of the dwelling-house of primitive man only as a place where he ate and slept; it possessed for him a spirit of its own. Its very orientation, the position of the hearth and the doors, was an expression of some belief, and we cannot understand the structure of the house without reference to the social and natural setting.

The oldest type of dwelling yet discovered is in Siberia, consisting of an excavated floor and a covering of skins stretched over antlers. In the reed huts of some tribes in Iraq we see, perhaps, the oldest type of dwelling built in this part of the world. In Europe, wattle and daub construction was replaced by wood, and in Switzerland a site of Neolithic lake dwellings has been discovered, built entirely of wood. In a period which is Neolithic and early Bronze for Europe and of temple-cities and the earliest civilisations for Egypt, Mesopotamia and the Indus valley, construction of wooden dwellings took a fairly stylised and complicated form. In Mesopotamia and the Indus valley rammed clay and sun-baked bricks, in Egypt sun-baked bricks and stone began to replace reed and wattle round about 5000 B.C., but the patterns used for the older structural material exercised a lasting influence on brick and stone architecture.

Along with dwellings, there were ritual structures also, in Europe mainly of wood, built as a part of the ritual for burial. Traces of an elaborately constructed building for ritualistic purposes have been discovered at Woodhenge, belonging to the late Neolithic period. In Mesopotamia ritualistic structures, which will be described later, were built of brick, and the architecture could be imposing.

Clothing, even more than dwelling, depends on climate and available material. The first clothing in Europe was doubtless made of skins, sewn together with fine leather thongs or strands of sinew. A statuette from Malta in Siberia seems clad in a trousered suit of fur. In southern Europe, plant fibres may have been used. The early history of cotton is very obscure. It may have come from Africa or Arabia. The cotton found at Mohenjo-daro was in no way primitive, but had all the measurable characteristics of modern Indian cotton. Its evolution from the wild plant must, therefore, have occurred very early. A remote possibility is that cotton was brought from South Arabia and cultivated in the Indus valley.<sup>8</sup>

Pottery has a curious significance in the history of mankind. In the earliest level of culture we find images of men and animals made for magical purposes. The hardening of clay by fire would have been known equally early, since it occurs when a clay hearth is used. The earliest pottery, it is believed, was made during the Middle Neolithic period. The invention which radically changed the character of this industry, first practised as one of the domestic occupations of women, was the potter's wheel. This enabled the shaping of a very wide variety of pots by "throwing" clay on a rapidly rotating wheel, with the hands guiding the clay into shape instead of directly making it. The wheel was introduced in Mesopotamia, it is believed, before 3000 B.C., thus laying the foundation of one of the earliest specialised industries. The use of the wheel provides skilled workmanship the opportunity for large-scale production, and since potter's clay is not to be found on "every land," the raw material was scarce enough to be out of reach for those who were not specialists. But pots were indispensable, and so the potter. He has left his stamp on all ancient civilisations, and is one of the archaeologist's most reliable and helpful guides.

Basket-making has been considered by some as an older industry than pottery. It is possible that caulking baskets with clay suggested the possibility of clay pots. The oldest surviving baskets were used to store grain in the Neolithic settlements of Merimde and the Fayum in Egypt, and these settlements already had pottery. But there are cultures representing the

<sup>8</sup> Singer, Holmyard and Hall, *A History of Technology*, p. 374.



Neolithic stage of development in which there is basketry but no pottery, and there are primitive tribes today who make baskets but not pots. The material for basketry is generally unspun vegetable fibre, though hand-twisted cords are found in some types of baskets. Most of the evidence for basketry comes from these areas, the Near East (including Egypt, Mesopotamia and Palestine), Peru and Europe. It is a craft in which it is easy to understand the work of past ages, because the same techniques are in use to this day, even to the details of ornamentation, favourite colour combinations and local variations.

Basketry and textiles are closely allied crafts, representing the techniques of interlacing strands or fibres by hand. They are equally old, no culture having been discovered in which one has been practised and the other is unknown. Both these crafts had developed in fairly well-defined directions by about 5000 B.C. But while baskets have changed little through the ages, textiles, with their decorative value and their many uses, have increasingly taken new forms, specially after the invention of the loom.

The development of skills relating to food, shelter and clothing have a great human interest, but just as in our own days the progress of a country is measured in terms of its heavy industry, the progress of mankind towards the close of the Neolithic age and the ages immediately following has to be estimated according to the heavy industry of the time, the manufacture of stone and metal implements and weapons. In those days, as in our own, it was not only the arts of peace that ensured survival. The industrial symbol of the Neolithic age is the polished stone axe, which could be used for cutting trees and killing animals, no doubt, but was primarily a weapon for use against human enemies.

As bone and wood came more and more into use, the technique employed in shaping these materials was transferred to stone. Side by side, the search for stone of better and better quality was continued, so as to obtain nodules of flint most suitable for making axe-heads, knives, borers, arrow-heads, spear-heads and the like. There are evidences of mining for flint in several European countries that are considered to belong to the Palaeolithic period, and the practice was of course

continued. The Neolithic period is distinguished by technical improvement in the manufacture of all types of weapons and tools — polished stone celts or axes with handles, blades, knives, daggers, arrow-heads, mace-heads, battle-axes, reaping knives, saddle-querns, chisel-ended smoothing tools — as well as bone and ivory needles, bodkins, pins, combs and handles for knives, etc. But the development was gradual, depending primarily upon the material available.

Archaeology and classical tradition alike point to north-eastern Iran and beyond as the region where copper was first discovered and smelted and a science of metallurgy evolved, and the centre from which metal-working skills were diffused. There is evidence that copper was used by the Sumerians in southern Mesopotamia as early as 3500 B.C., and that it had become common by 3000 B.C. The Sumerians obtained their copper from Asia Minor, from Armenia, and from Elam. In Egypt, copper was in use from 2600 B.C. onwards; it came to Europe still later. As its use spread, different techniques of metal-working were evolved, based mainly on the kind of copper available. Copper is very seldom found in a pure state and is generally mixed with alloys such as tin, lead, antimony, arsenic and zinc. Archaeologists are, therefore, inclining to the view that it is a mistake to name the period when copper came into general use as the Copper Age. It would be more appropriate to say that the Neolithic Age was succeeded by the Bronze Age, the time when both stone and bronze were in use being called the Chalcolithic Age. Gold and silver were discovered and utilised about the same time as copper but, however highly they may have been prized, their economic utility was limited till they became the medium of exchange.

Once metal had been discovered, it became a necessity. Copper and bronze tools were found to be more efficient and durable than stone and they could be remade if damaged. Far more effective weapons could be made out of them, and if we remember that the archaeological records of this period contains flat celts, daggers, battle-axes, spear-heads and arrow-heads along with chisels and saws and similar tools, we shall realise how all-important it would have become to possess and manufacture metal weapons and tools. The first metallurgists were most probably small clans inhabiting mountainous areas

where agriculture could not by itself support life, nor could food-gathering. For them it must have become a dharma, a matter of faith, to practise metallurgy and not produce food — for as normal food-producers they could not have become the specialists their occupation required them to be. They would, therefore, have gone around, exchanging or manufacturing metal objects in return for food and other necessities. Their migration would have contributed materially to the creation of a demand for metal and also to the diffusion of their science. Settled communities, on their part, would have had to intensify their production of foodstuffs in order to exchange them for metal or metal goods, or to maintain their own metallurgists, and keep them supplied with the raw material and fuel required.

Copper not being available everywhere, it became vital to ensure its supply. We find, therefore, an improvement in the means of transport. The ox, the pack-ass, the cart, the sailing ship come rapidly into prominence. Models from Gawra in Assyria show that two-wheeled and four-wheeled carts were already in use before 3000 B.C.,<sup>9</sup> and the sail had also been invented. An ominous sign is the use of the horse for chariots, from about the same time.<sup>10</sup> The art of war was to force its inclusion among the essential skills, to protect and provide for cities and to establish empires.

<sup>9</sup> V. Gordon Childe, *op. cit.* p. 74.

<sup>10</sup> *Ibid.*, p. 83.

### CHAPTER III

## THE EARLIEST CIVILISATIONS (3000-1500 B.C.)

### I

THE transformation of the Neolithic settlement into a city represents the first flowering of human civilisation. The period around 3000 B.C. seems to be the season when this flowering took place. Since it is a period when writing was in its infancy and the calendar had not been invented, it would be unreasonable to expect a chronological order to be established except roughly. In fact, what we should try to understand is the nature and the quality of this first outburst of creative human energy, and the relationships between the different centres in which civilisation first took root and developed.

The geographical area in which civilisation first appears is bounded by the Sahara and the Mediterranean in the west, the Thar Desert and the Himalayas in the east, the Eurasiatic mountain spine — the Caucasus, the Elburz and the Hindukush — in the north, and the Tropic of Cancer in the south. From this centre civilisation radiated outwards, reaching the Mediterranean islands and Greece about 2000 B.C. and China about 1300 B.C.

Was this development spontaneous? In all probability it was not. "All that is known of growth and the spread of culture goes to show that most communities in any part of the world which have advanced beyond the food-gathering stage of culture and practised any of the fundamental arts and crafts owe their cultural capital to some other community . . . . This does not mean that members of any community may not invent some new things. It simply means that the probabilities against two communities having independently come to elaborate a culture that possesses, say, pottery-making, weaving and agriculture are so tremendous that it can be assumed with confidence that this has never taken place."<sup>1</sup>

This view is confirmed in several ways in regard to the founders of the first temple-cities and city-states. Mesopotamia,

<sup>1</sup> W. J. Perry, *The Growth of Civilisation*, p. 14. (Penguin.)

the valley of the Tigris and Euphrates, and the area known as the "Fertile Crescent" has from time immemorial been peopled by tribes of the Semitic race. But the Sumerians who built their civilisation in the extreme south of Mesopotamia were not a Semitic people. They were a broad-headed race, thick-set and short in stature, with fleshy faces, and a big nose prolonging the line of the forehead without any intervening depression. Their eyes were set widely apart and rather slanting. We do not know with which racial stock to connect them, but they must have come from a high-lying country, because their signs for "land" and "mountain" are identical, and their temple suggests the shape of a mountain. They have been compared sometimes with the Turanians of today, sometimes with the Dravidians of India. The racial origin of the ancient Egyptians is also a subject of dispute. Some regard them as a conquering Asian race acquainted with metallurgy and armed with better weapons, which easily triumphed over the tribes inhabiting the Nile valley in the Neolithic period. The argument against this is that if we assume the existence of such a people, we must be able to show where they had built up their civilisation. What we have been able to discover in regard to the appearance of the people who inhabited the cities of the Indus valley also indicates that racially they were different from the tribes living in the surrounding regions. We cannot, of course, for lack of knowledge say anything with confidence, but it seems highly probable that changes in archaeological cultures were due to conquest, that the conquerors were people with established beliefs and organisations, and considerably more advanced in skill than the people whom they overcame. They did not settle down and extend their knowledge and skill by a process of learning. They had already assimilated the experience of their times and given it a new expression. The flowering of the earliest civilisations consists, therefore, not so much in learning as in the application of knowledge already possessed. In Sumeria, Egypt and the Indus valley geographical factors profoundly influenced this application, leading in each case to emphasis on a different aspect of belief or organisation and hence to a unique cultural development.

As already indicated, we cannot be sure of the chronology, and there is often wide divergence in the dates given by

archaeologists and historians. There is also a difference between Egyptologists and Assyriologists as to whether the Egyptian civilisation was older or the Sumerian. Some give to the Indus valley civilisation the honour of being the oldest. Most probably all three began about the same time, though there is evidence of Sumerian influence in Egypt but none of Egyptian influence in the earliest stages of Sumerian civilisation. The earliest cities of Sumeria, also known as "cultures," were Uruk and Jemdet-nasr. They are dated approximately 3000 and 2900 B.C. Sumeria was in the extreme south of the valley of the Tigris and the Euphrates and the earliest cities, Uruk, Ur, Lagash, Umma, were in the south. Three other cities, Eridu, Larsa, Bet-tibira are considered by some to belong to the same age. Somewhat later, the cities of Shuruppak, Adab and Nippur sprang up to the north. Still further north were Kish and Akshak. It is thus apparent that in the beginning colonisation was much denser in the south. The city of Babylon, which acquired importance about 2000 B.C. and was the capital of political units which included most of the valley, later gave its name to the whole region. By that time the political centre of gravity had shifted to the north and Sumerian civilisation had become merged in the Babylonian.

The earliest dynasty of kings that we know of was the dynasty of Ur, during whose rule the transition from priest-rule to king's rule definitely took place. Other cities besides Ur rose to eminence, and there was constant warfare and change in the balance of power among the city states till Sargon, the king of the Akkadians, became "King of the Four Quarters," which meant that he had united the whole of the Tigris-Euphrates valley under his rule. By about 2600 B.C., the Akkadian kingdom declined and the cities of the south became independent. Towards the beginning of the second millenium, Babylon was conquered by the Amorites, whose dominion culminated in the rule of Hammurabi (c. 1728-c. 1686), a king whose personality and achievements have left a deep mark on human civilisation.

The course of Egyptian history was much smoother. We have records of what are known as dynasties. The mythological founder of the Egyptian state, who united the north and the south, was Menes. He is believed to have laid the foundation



on which the policy and administration of the state was built up. The earliest dynasty of which we have any record is the third. Of the fourth dynasty much more is known, because one of the kings who belonged to it, Khufu, was the builder of the first pyramid. Around 2500 B.C., during the sixth dynasty, the administration collapsed, and there was a dark age from which Egypt emerged under Amenemhet, the founder of the twelfth dynasty. The period of this dynasty (c. 1995-c. 1790) was one of high attainment in politics, commerce and culture. In 1790 B.C. an Asian tribe, known as the Hyksos, invaded Egypt and overthrew the thirteenth dynasty.

The Indus valley civilisation is considered by some authorities older than the Egyptian and the Sumerian, but most hold it to be contemporaneous. Its main centres were Mohenjo-daro and Harappa, but its area seems to have extended over south-east Persia, Baluchistan and whole valley of the Indus, including the Punjab. Its political history can be guessed from the fact that the city of Mohenjo-daro was rebuilt six times. The foundation of the first city has been roughly dated 3750 B.C., but in Harappa a level has been reached which would justify our fixing a still earlier date. The remarkable fact is that the first city of Mohenjo-daro gives evidence of a civilisation more advanced than that of the later cities. It is clear from this that the people who built the first city were already highly civilised. We do not know from where they came and to what race they belonged, but the resemblance between them and the Sumerians is such that a common origin may be presumed. The political destinies of the two were, however, very different, for while Sumerian civilisation merged into the Babylonian, and the traditions of civilised life were maintained, the Indus valley civilisation seems to have disappeared entirely.

The development of the Sumerian, the Egyptian and the Indus valley civilisations is the major fact of the third millennium. But civilisation was expanding. Around 2000 B.C. the Phoenicians settled on the Syrian coast and began the commercial activity for which they are famous, the Hittites established a kingdom in Asia Minor, which was later to expand eastwards and southwards. At Mycenae, in the Peloponnese (southern Greece), and in Crete a people of whose racial origin we are uncertain built cities equal to the Sumerian and the

Egyptian in splendour. They derived their wealth from industrial and commercial activity, and their enterprises prepared the ground for carrying civilisation among less advanced peoples through trade and colonisation.

## II

The study of the myths of Sumeria and Egypt confronts us with a multiplicity of gods and legends. These have been patiently analysed and they reveal to us the process by which the results of political events were absorbed into beliefs. In the cities of Sumeria we have principal gods and goddesses and minor deities, some of whom are called "old." We may be almost certain that the principal god was the god of those who had established the city and the minor deities were the deities of the Neolithic settlements which had been absorbed or over which dominion had been acquired. The gods did not destroy each other. Their believers were continuously arranging and re-arranging them into a hierarchy corresponding to physical facts. They had to do it, because otherwise their universe would have been thrown into disorder. In Egypt, this process of assimilating beliefs and bringing the existing conditions into harmony with a divine order can be seen even more clearly. Each tribe settled in the area which later came to be known as the *Nome* had its own totemic symbol. We see this in the ensigns set above the native boats which are painted on the oldest vases. In the periods immediately following, when the Nile valley was united, we have a large number of what were considered divine forms that are curious combinations of animal and human forms. These combinations represent an assimilation of beliefs. Gradually they came to symbolise religious ideas and doctrines which could not be expressed intelligibly in any other way. Horus, whose symbol was the falcon, was the first to acquire overlordship of the valley.

We may assume that the life of the people who settled in Sumeria and Egypt was governed by belief in a god and organised round the temple and the ritualistic worship of the god of the temple. Everything belonged to the god — the temple, the priests, the ruler, the people, the land on which they lived and on whose fertility their life depended, all the



skill possessed by the people and all the labour which they could contribute to the exploitation of the land and the practice of the different industries. In Sumeria, the belief survived for over 2,000 years that human beings belonged entirely to the god and had been created merely to serve him. This service was being continuously interrupted by the enemies of the god, against whom the priests by themselves were not effective enough, so we see the king exalted. Beginning with the early years of Dungi, second king of the dynasty of Ur, the doctrine of the godhood of the king holds perhaps the foremost place in Sumerian theology and liturgy. The early kings of Sumeria proclaimed their divine right to rule at the dawn of history, when they assumed the religious title *patesi* (priest-king) besides, or instead of, *lugal*, king. During the long ages preceding the rise of the Ur dynasty in the twenty-fifth century B.C., the Sumerian people generally accepted this ancient dogma.<sup>2</sup> The configuration of the land, and the division into many temple-cities, none of which was powerful enough to suppress the rest must, however, have militated against this doctrine of divine right. Egypt, on the other hand, was united by the Nile, and diffusion of authority appeared to be not only illogical and unnecessary but a positive misfortune. The political ruler, the Pharaoh, acquired a religious prestige which totally eclipsed that of the priests and individual temples, and ensured the maintenance of the Pharaoh's semi-divine position.

One of the oldest liturgical texts of Sumeria says,

*Sumer, the great mountain, lord of heaven and earth  
The offspring of a king clad upon by a true form,  
Offspring of a high priest whose head is crowned.  
The high priest is the Lord of the deep, the divine king who  
within the sanctuary of heaven dwells,  
The king is the great mountain father, Enlil.*<sup>3</sup>

By about 2500 B.C., the king could separate himself from the temple organisation. He acquired a status that was as much

<sup>2</sup> Stephen Langdon, *Sumerian Liturgical Texts*, Vol. X, No. 2. (Philadelphia University Museum.)

<sup>3</sup> *Ibid.*, Text No. 4562, pp. III ff. Enlil was the chief god of the Sumerians.

political as it was religious, because he protected the temple from the believers of other gods, the inhabitants of other cities, and the food-gathering or nomadic peoples of the surrounding regions. There is a lamentation in the old texts from which one can gather how the god depended on the king:

*The god Lugal (?)—da-ge from his city has been taken away,  
As for Ninzu-anna, her beloved abode  
The foot of the stranger entered.  
How long of her destroyed habitations and her destroyed temples  
shall the misery be?*<sup>4</sup>

The Sumerian cities were almost perpetually at war with each other, and the problem of peace was uppermost in people's minds. What they wanted, above all things, was security. Survival after death, therefore, was not the problem that would exercise their minds. They concentrated on worship and the efficacy of worship. In Egypt there was peace and prosperity, and though calamities did occur, the intervals between them were long. Sumerian religious thought is pessimistic from the beginning. "Throughout we meet with the sombre conviction that man is impotently exposed to the impact of a turbulent and unpredictable universe."<sup>5</sup> Egyptian religious thought becomes pessimistic only after the disintegration following the collapse of the 6th dynasty around 2500 B.C. Before that all confidence and faith is concentrated in the universal order, and in the Pharaoh, of whom it is said, "Authoritative utterance is in thy mouth. Understanding is in thy heart. Thy speech is the shrine of truth."<sup>6</sup> An inscription on a tomb reads: "What is the King of Upper and Lower Egypt? He is the god by whose dealings one lives, the father and mother of all men, alone by himself and without an equal."<sup>7</sup>

The problem that occupied the Egyptian mind was the life after death. Since survival could be conceived only in a physical form, the treatment of the dead body became a matter of supreme importance, and systems of preserving the body,

<sup>4</sup> Langdon, *op. cit.*, Text No. 4577.

<sup>5</sup> Frankfort, *The Birth of Civilisation in the Near East*, p. 59.

<sup>6</sup> Frankfort, *Kingship and the Gods*, p. 51 (Chicago).

<sup>7</sup> Frankfort, *Ancient Egyptian Religion*, p. 43.

which reveal an amazing knowledge of chemistry, were evolved. But they were costly. The vast mass of the people could derive no benefit from them. Their lot was to be buried and forgotten. The wealthy citizens, the priests, the noblemen, the members of the Pharaoh's family, sought survival after death as the highest good. The Pharaoh himself, looked upon as semi-divine during his life, became even more important after death and his duties towards his people did not cease. He entered upon a supernatural life in which he was believed to be the mediator between the dead and the gods. He remained the protector, the intercessor, the magician who saved the departed as he saved the living; hence the people's eagerness and alacrity in building splendid tombs to protect the royal body from hurt and to secure him fitting and eternal means of subsistence.<sup>8</sup>

"The pyramids, with their immense collection of cult buildings which stands in front of them, with their chambers and passageways within are not intended to satisfy our aesthetic sense, nor are they an expression of ostentation. They serve the ritual enactment of the apotheosis of the dead king. Just as the numerous statues — even those of men and women not of royal blood — most of these paintings, sculptures and inscriptions remained inaccessible to human eyes. The inner foundation of each pyramid contains many layers, and each of the cult buildings contained in these layers is of special significance in the rites of deification. The form taken by Egyptian works of art is not dictated by their effect on man but by the purpose it has to serve; a work of art like the recitation of a litany helps to mould the world."<sup>9</sup>

It was in accordance with this belief in the relationship between human actions and the divine order that, at a certain very early stage, the "corn king" was sacrificed. It was in accordance with this belief that the body of the Pharaoh was embalmed and enshrined to ensure its preservation for all time. In Sumeria also, there are indications that, at one stage, the "corn king" and others along with him were sacrificed, and that, at a later stage, the king became the "child of the gods." Both in Egypt and Sumeria, what we would call the

<sup>8</sup> Moret and Davy, *From Tribe to Empire*, p. 152.

<sup>9</sup> Hellmut Brunner, *The New Aspect of Ancient Egypt*. Universitas, Vol. I, no. 3, 1957 (Stuttgart).

political functions of the ruler were deduced from his religious functions; for the maintenance of ordered human life was believed to depend in the first instance on the performance of the religious functions.

Sumerian and Egyptian religious beliefs continue in slightly varying forms for about 3000 years. They begin with fairy tales, grow into a mythology, the spiritual values of which become a more and more complicated pattern, and they end in a philosophy that has not obtained release from myth and magic, but contains nevertheless a great deal of mysticism and exalted thought. We have in Egypt the concept of *Ma'at*, or God's will, also called Justice or Truth. The maintenance of *Ma'at* is the supreme duty of the king. But *Ma'at* does not apply to human beings only. It is something by which the gods also live, something on which the cosmic order is based. Side by side with the development of *Ma'at* and the elaboration of the attributes of the different gods, we have also evidence of a movement towards monotheism. Indeed, as we shall see later, in Egypt in the middle of the second millennium, a Pharaoh led a movement for the recognition of one god, Aton, as the supreme deity. This movement failed. But if polytheism takes the form of the doctrine, "Sacrifice to god, but do not question too much the forms he takes. God is like a sun of heaven; only its rays reach the earth, yet its power is revealed in countless ways and thoughts."<sup>10</sup> We are not then very far from the religious and philosophical thought of subsequent ages. In fact, the religion of Egypt and Babylonia in their later forms exercised a lasting influence on the religious thought of the Middle East and Greece.

The belief which invested the ruler with complete authority also made him responsible for the protection of the believers. He had to safeguard the legal rights of citizens, to act as the supreme judge. It is said in one of the Sumerian texts in regard to a king "that he did not deliver the orphan and the widow to the powerful." It was this deep sense of responsibility which led to the enactment of laws that would ensure justice, and there was a close and direct relationship between the will of the gods and the law of the king. The stele on which the laws of Hammurabi are inscribed shows him receiving the

<sup>10</sup> *Ibid.*, p. 274.

text of the laws from the god Shamash. We have here, as will be readily seen, an affirmation of the principle that human laws must be in accordance with moral and religious or spiritual laws.

Apart from justice, beliefs governed also the operations of economy, the exercise of the mental faculties and organisational effort. Enlil, the supreme god of Nippur, was called "Merchant of the vast Earth." The achievements of science and engineering which we see in the temples of Sumeria and Babylon and the pyramids of Egypt were inspired by religious faith and would not have been possible without it.

The ancient texts of Sumeria and Egypt have been deciphered and read. We know that the civilisation of the Indus valley was literate, but we have not been able to read the script. We can, therefore, only make conjectures in regard to the beliefs and practices of the people who built the chief cities of Mohenjo-daro and Harappa, and other smaller cities. They seem to have worshipped a mother goddess, and also a god whom some consider to be the earliest form of Shiva. We know nothing about their ritual except that bathing seems to have occupied a very important position, as the Great Bath of Mohenjo-daro and the numerous bathrooms in the houses seem to indicate. Human sacrifice may have been practised. Spirits, snakes, trees, and some other objects seem to have been worshipped or held in great reverence, but nothing definite can be said until the Indus valley script has been read.

### III

We are apt to think of civilisation as arising primarily out of the city, which has given it its name. But the city was actually a consequence and not the cause of civilisation.<sup>11</sup> In the thousand years from 4000 to 3000 B.C. when the urban revolution is supposed to have taken place, the initial form of the city was the temple. The land, the people, the rulers, the priests all belonged to the god of the temple, which comprehended all that we understand by religious, political, economic and social life. Later, because of the growth of population as well as the conflicts resulting from a settled and economically

<sup>11</sup> Bernal, *Science in History*, p. 67.

developing life, the temples began to absorb each other, and changes took place both in organisation and economy. The kings, as children of the god, acquired special rights because of the importance of the service they rendered, and perhaps the temples also, because of their development as economic units, had to give up exclusive proprietary rights in favour of a system in which their ownership of lands was preponderant but not absolute. So we have in the Sumerian city, just before the beginning of the historical period, a system in which the land is divided into three categories, "the land of the Lord," whose revenues were devoted to the requirements of ritual and the internal economy of the temple, the land that was farmed out to those serving the temple, among whom was the king or the king-priest, and the houses and gardens which were given over to private ownership. But the temple remained the centre of economic life. It has been calculated that the total number of people attached in one way or another to the temple was about equal to the population of the city of Lagash.

The highest authority in the temple was the head priest. We know of some cases in which the head priest was the king, and in some, the king's wife. The secondary functions of temple administration were performed by the scribes. In the most ancient period there were only "scribes of bulls," "scribes of asses," "scribes of flour," "scribes of wool," though the snake charmers attached to the temple had a snake charmer-in-chief. Later, a hierarchical structure developed and there were superintendents and chief scribes directing the scribes. The administration of the temple was entrusted to superintendents and inspectors, under whom were labourers, ploughmen, cattlemen, cowherds, shepherds, goatherds, gardeners, fishermen of the sweet water, fishermen of the bitter water, fishermen of the sea,<sup>3</sup> dairymen, cooks, butlers, brewers, carpenters, masons, blacksmiths, goldsmiths, stonemasons and other skilled artisans. The temple had its depots for storing goods under managers and their assistants. The income of the temple was spent on ritualistic ceremonies and great festivals, on feeding and clothing slaves and on the distribution of rations, consisting mainly of barley and wool, to free men serving the temple. An aspect of the temple economy which was of the greatest significance for the future of mankind was the evolution



of a method of writing. This necessitated education because otherwise it would not have been possible to perpetuate the system of writing. In Sumeria and Egypt, the temples were the first schools, and to the very end remained the guardians of literacy and all secular and religious knowledge.

When the powers and the responsibilities of the king increased, he took up his residence separately in the palace, known according to some texts as the "great house." The title Pharaoh, in the original Egyptian, *Per-o*, also means "great house." In Sumeria this change seems to have occurred around 2500 B.C., in Egypt much earlier.

But if the king of the Sumerian city-state set up his own house, it did not mean that he handed over the administration of the temple completely to the chief priest. He only delegated some of his ritualistic functions. His powers continued to comprehend, as they did before, all the tasks accomplished in common by the people attached to a temple: the creation, the maintenance and the repairs of the system of irrigation, the construction of temples, fortifications and shops and their upkeep, and lastly, defence against external aggression. In the internal administration, the king acted as supreme judge and maintained law and order. He appears to us already in the protohistoric period as a military chief, and is shown on the seals having vanquished enemies presented to him, despoiled and naked. He administered the properties of temples; like the other servants of the god, he received "land for his subsistence." His subjects offered goats, cattle, and manufactured articles to him on the occasion of the great festivals, and from some categories of workers he received payment of dues in kind and cash. This placed the king in a position where he could assert the independence of the royal power as against the priests, and create a class of functionaries who would exercise control in his name. Gradually, a part of the population came to be called "subjects of the king," which indicates the pre-eminence which the king had acquired.

In Egypt, the fact that the Nile was a link connecting all the cities along its banks had the result that the individual city did not assume the importance it had in Mesopotamia. From the earliest times of which we have any knowledge, we find the whole scheme of ordered living centering round the Pharaoh.

His palace and his tomb were of far greater importance than the temple, and every type of activity depended upon his semi-divine character. In course of time, an elaborate system of administration was evolved which made Egypt into a single religious, political and economic unit.

At the head of the state was the Pharaoh, whose authority was beyond question, because his person was held to be semi-divine, the axis round which the whole of life revolved. Under him and directly responsible for the administration of all the departments of the state was the prime minister or vizier, who was also the chief justice. The highest fiscal authority was the chief treasurer. Under these two officials were the governors of the "nomes," or districts into which Egypt was divided. These governors exercised administrative and judicial authority and were also in charge of economic affairs. They had under their control what might be called a miniature state with all the organs of the government, a treasury, a court of justice, a land office, a service for the conservation of the dykes and canals, a body of militia with a magazine for its equipment and a host of scribes and recorders.

The temple and king-priest in Sumeria and the Pharaoh in Egypt controlled the whole of economic life. The essential difference between the two was that while Egypt was largely self-supporting, the Sumerians had to depend entirely on trade for raw material for their industries. They, and after them the Babylonians, established a vast network of commercial relationships. They obtained copper and the best type of stone chiefly from Oman, tin may have come from eastern Iran, Asia Minor or even Europe, timber from Syria, lapis-lazuli from Badakhshan, conch shells from peninsular India. The maintenance of trade relationships was essential for survival. The Egyptian Pharaohs assured the supply of raw material, such as cedarwood from Lebanon and copper and other ores from Sibai, by sending out expeditions or, when possible, acquiring possession of these sources of raw material. In the south they tried to extend their dominion as far as Nubia and Punt (in Somaliland). It would have been most probably in search of raw material that Africa was first circumnavigated, as some accounts lead us to believe, about 1500 B.C.



The problem of transport has to be solved in order to maintain commercial relations. In Egypt, the Nile provided the most convenient route. Sailing boats were carried up the river by the wind, which blows north to south, and down the river by the current. The development of the cities in Sumeria must have been based on the fact that the river and gulf provided a means of transport. The ancient Egyptian foreign trade with the Syrian coast, Somaliland and Arabia was mainly coastal. Land routes were relatively less developed, but Sir Aurel Stein has traced the route by which merchant caravans travelled from Babylonia, across the Iranian plateau and Baluchistan, to the Indus valley. Probably there were similar routes from Mohenjo-daro and Harappa towards cities further eastwards in the upper Sutlej<sup>12</sup> and Jamuna valleys, where remains of the Indus valley civilisation have been found, and it is certain that Indus valley traders had discovered routes to the Deccan, from where they got gold and semi-precious stones.

Within the cities of this age we find a road system from the very beginning. In Sumeria and the Indus valley, care was given to the paving of streets, drainage and lighting. An attempt was also made to keep the cities clean.

The Indus valley had exemplary right-angled city plans; it is clear that authority must have prevented the rise of the tortuous alleys characteristic of many later cities. The houses had a pronounced batter or slope and never encroached on the streets, as they do in the bazaars of the modern East. All houses had latrines and bathrooms, disposing their waste into street drains. Houses had rubbish-chutes at the foot of which were sometimes bins at street level; rubbish bins stood at convenient places in the streets. The waste water entered the drains from tightly closed brick-lined pits which had outlets to the drains about three quarters of the way up. They seem the ancestors of our septic tanks and grit-chambers.

Trade means exchange of goods, the earliest form of which was by barter. In Sumeria, the first medium of exchange was barley. With the discovery and use of metals, a convenient medium of exchange was introduced. But for a long time

<sup>12</sup> Olaf Prufer, *Dher Majra*. Research paper published by Jamia Millia Historical Research Fund, Delhi, 1952.

barter continued along with the use of metal as a medium of exchange. We give below a business document of Sumeria, which illustrates how exchange of goods took place. The figures on the margin indicate the lines in the original document, the Roman numerals the obverse and the reverse.

- I. 1. One Sagrla,
2. One Ninsubne,
3. One Ninbaragi,
4.  $\frac{2}{3}$  manas, <sup>a</sup> 4 shekels <sup>b</sup> of silver,
5. 6 manas (?) of copper bronze,
6. ....copper bronze,
7. Their price is 2 manas,
8. One wooden Ma-Tag, <sup>c</sup>
9. Its price is 7 manas,
10. One bronze guba-lal, <sup>d</sup>
11. Its price is 6 manas,
12. Two bronze cutters for the centre of seed palm trees,
13. Their price is  $\frac{1}{2}$  mana.
- II. 1. Three shekels of silver,
2. The balance of the price in bronze of Akkad,
3. To Mamturu,
4. Ur-Engurtilla paid.<sup>13</sup>

Apart from illustrating the mode of exchange, the names given at the beginning of this document indicate the existence of slaves or the sale of human labour. Classes had already come into existence, and wealth was accumulating in the hands of a few. Class distinctions, in the economic sense, appear to have arisen "by a progressive modification of the sharing out of the produce of the village community, supervised by the priest, who managed to appropriate more and more on behalf of his god, and by the accession into the population of a number of disfranchised men and strangers, who had no right to any

(<sup>a</sup>) A weight.

(<sup>b</sup>) Coin of the Near East. Its value has varied.

(<sup>c</sup>) Perhaps a long wooden spear.

(<sup>d</sup>) Perhaps a hand balance.

<sup>13</sup> George A. Barton, *Sumerian Administrative and Business Documents*. (Philadelphia, 1915.)

share at all... The resulting inequalities were further accentuated and made permanent by trade," because those engaged in it had to be fed on the surplus food produced. "Most craftsmen were virtually serfs, receiving raw materials and food from their priestly or noble masters and handing over the finished goods. . . . Propertyless men sold their labour for wages."<sup>14</sup> The consequent misery, while on the one hand it led to unrest, also found religious expression, as seen in the following Sumerian liturgy:

That the rich man may not do whatsoever is in his heart,  
That one man may not do to another anything disgraceful,  
Wickedness and hostility be destroyed, justice be instituted.<sup>15</sup>

The peculiar character of the Sumerian and Babylonian economy is revealed by the fact that it was found necessary very early to make laws. The first code of laws was framed by King Bilalama, about 2200 B.C., which dealt with compensations and with regulations of wages and prices. It formed the basis of the code of Hammurabi, discovered at Susa in 1902, beautifully engraved upon a stone cylinder. This code contains 285 laws, arranged scientifically under the headings of Legal Procedure, Proprietary Rights, Military, Agricultural and Commercial Laws, Debts and Deposits, Family, Inheritance and Dowry, Adoption, Penal Code, Laws of Wages, and Slave Laws. It combines a high ideal of justice with severe punishments based on the principle of retaliation. Punishments for offences also vary according to the status of the person injured, and there is at the same time a desire to be absolutely exact. For instance, if a man struck another man's daughter and killed her, not he but his daughter would be killed.

Within certain limits the laws regulated the prices of goods, the wages of labour of builders, brick-makers and other craftsmen and the fees of the surgeon. The law of inheritance required that a man's children should become his heirs. All the sons inherited equally; private property in land and goods was taken for granted by the code.

<sup>14</sup> Bernal, *op. cit.*, pp. 71-72.

<sup>15</sup> Langdon, *op. cit.*, Text No. 4563.

The code also indicates the measure of responsibility undertaken by the government to ensure security of life and property. If a robber is captured, he is to be put to death. "If the robber is not caught the man who has been robbed shall in the presence of the god give a specified account of his loss, and the city and governor on whose land and boundary the robbery was committed shall give him compensation for all that he has lost."<sup>16</sup>

The military system and the art of war as prevalent during this period has not been studied in sufficient detail and we cannot, therefore, say with any confidence how much pressure it exercised on administration and economy. But there can be no doubt that because of warfare "the principal function of the head of the state changed from that of a director of agriculture and public works to that of a war-leader, from priest to king. The maintenance of armies added enormously to the burden of the food producer, and must have further depressed his position."<sup>17</sup>

We know from the archaeological record what weapons were used and what improvements were made in these weapons in course of time. There is reason to believe that the first temple-cities were open, but gradually they came to be fortified. Remains of fortifications have been discovered in Mohenjodaro and Harappa also. The Sumerians evolved the phalanx, which reappears later in Greece, a formation in which foot soldiers with large shields stand close together, and attack or defend like a solid wall. The use of new weapons, of cavalry and light chariots and the art of fortification must have made a great difference in the fortunes of war. And there can be no doubt that one of the factors which decided the fate of cities and kingdoms was the quality of the weapons and the tactics that were based on them. We may be sure that every conqueror succeeded because an unexpected superiority in weapons or tactics turned the scales in his favour.

#### IV

Writing must be as old as speech, and in the cave drawings there are signs which are thought to have been intended to

<sup>16</sup> S. G. Pallis, *The Antiquity of Iraq*, pp. 534-560. (Copenhagen, 1956.)

<sup>17</sup> Bernal, *op. cit.*, pp. 93-94.

convey a message to those who read them. But it was only in the temples, during the course of the revolution which led to the establishment of cities, that it was found necessary to establish a means of communication through writing. The temple was a big establishment, and its work could not be carried on unless a record of goods received and handed out could be kept. It is thus that the skill of writing was cultivated. The oldest tablets are often pictures which are self-explanatory. As it was difficult to convey many ideas in pictures, it became the practice to attach quite arbitrary meaning to them. This was the stage when writing took the form of ideograms. The Chinese took the course of adopting new pictures and agreeing upon further modifications and combinations to express most of the ideas to be recorded. The Sumerians preserved a number of conventional pictures, using them, however, not only as ideograms but also phonetically to spell out words. Hence the number of current signs was not increased with the development of the script, but was actually reduced, and the signs themselves were simplified. The Sumerian script is called cuneiform (wedge-shaped), because the signs were stamped with a stylus. The development in Egypt was along similar lines and began at about the same time. There was first the hieroglyphic script, simplified by degrees into the hieratic. For writing, the Egyptians used sheets woven out of the fibre of the papyrus plant, which was very convenient because the sheets could be joined together for documents of any length, and then rolled up. As in Sumeria, so in Egypt also, the signs or characters began to be used phonetically.

In the oldest surviving tablets of Sumeria there are lists of signs which, by the early dynastic times, had grown into regular dictionaries. These lists are confined to nouns only, and they were expanded later by the addition of a column giving the Semitic-Akkadian equivalent. Here we have one of the oldest forms of cooperation on an international scale.

The exigencies of the temple economy led to the development of a system of notation. In Sumeria, semi-circular impressions were used for the figures one to nine, ten was indicated by a circle and twenty by two circles. In Egypt one stroke was used for 1, two strokes for 2 and so on up to 9. For 10 a new sign was used, and two tens made 20.

Exchange of goods as well as the need for measurement made it essential to have a system of measures and weights. So we see the introduction of a conventional unit of weight, related numerically in the same simple way as units of length. Weights were represented by carved blocks of a stone called haematite. The balance must have been invented before standards of weight could be established.

The organised cooperation of an urban population requires fairly accurate divisions of time. The Sumerians divided the day and night into twenty-four hours, and these twenty-four hours into two parts of twelve hours each. They devised a sort of sun dial and water-clock for measuring these intervals. For the year they kept a lunar calendar, though they knew the length of the solar year and, at least in later times, performed the difficult mathematical task of correcting the discrepancy between the lunar and the solar calendar. They developed the sexagesimal system — 360 degrees in a circle, 60 minutes in an hour, 60 "second" minutes in a minute. The Egyptians divided the year into three seasons of four months each, and assigned thirty days to each of the months; at the end of the twelfth month they added five days to bring the year into harmony with the solar year. But their calendar remained six hours shorter annually than the actual calendar of the sky.

What we call the exact sciences were the direct outcome of the social conventions on which writing, notation, weights and measures and the divisions of time were based. Both the Sumerians and the Egyptians developed the sciences of arithmetic and geometry to meet their requirements, and if we remember the elaborate calculations that must have been made in order to build the lofty Sumerian temple called ziggurat and the pyramids, we can appreciate the extent to which the exact sciences were developed. Medical science suffered from being mixed up with magic, but both the Egyptians and the Sumerians used the opportunities provided by city life to develop diagnostics. "From the noticing of diseases, and even recording them — for we have some extraordinarily interesting examples in early Egyptian papyri — arose the sciences of anatomy and physiology. . . . Official medicine codified the plants and the mineral substances, knowledge

of which had been handed down traditionally from the medicine-men and wise women of primitive cultures. . . . The city doctors could call on a far larger area for their drugs and could organise their production. It was from this source that arose the science of botany and the first botanical or herbal gardens."<sup>18</sup>

Chemistry did not attain the position of a distinct science in the period of early civilisation, though the Egyptians devised highly effective methods of embalming, and metallurgists could separate metals, and were acquainted with the general principles of oxidisation. Glazing of pottery began quite early in Egypt, and glass also began to be manufactured by about 1500 B.C.

We have already stated that the discovery of metals changed the life of mankind. After the initial discoveries, processes had to be evolved to make the best use of ores of different kinds, and the quality of the products gradually improved. Sheet and wire were made by hammering and drawing, and casting, welding, soldering and riveting developed very quickly. The use of metal tools, specially the knife, chisel and saw, transformed the working of wood and stone, and made jointed carpentry and coursed masonry practicable on a large scale. Arts and crafts received an extraordinary stimulus. In the pyramids and in the ruins of Cretan palaces and buildings particularly, the most exquisite examples of the art of the jeweller, the carpenter, the stone-mason and the potter have been found, and both Egyptian and Babylonian sculpture and architecture set standards of beauty and massive grandeur that were difficult to surpass and form one of the most valuable parts of the heritage of mankind.

<sup>18</sup> Bernal, *op. cit.*, p. 85.



CHAPTER IV  
THE FIRST EMPIRES (1500-600 B.C.)

I

THE earliest civilisations produced the self-governing cities, the state, and a type of economic relationships based on sea-routes which may be called commercial or maritime empires. They also produced the ambitions, the conceptions of self-interest, the lust for power which led to warfare and destruction, to conquest and enslavement, to wealth and grandeur. It is only in the history of Egypt, and there also only at certain periods, that the promotion of peaceful intercourse and trade is the direct aim of those possessing political and military power.

We have to consider the history of this period from three different standpoints: the history of individual countries and well-defined political divisions; the economic and commercial activities of the cities, independent or nominally included within some large political unit; and the movements of the barbarians, who sometimes built up empires to rival those of the civilised peoples.

The most well-defined among the political units was the kingdom of Egypt. After the expulsion of the Hyksos, Pharaohs of the eighteenth dynasty (1580-1346), Thutmosis III (1479-1447) and Amenhotep III (1447-1376), revived the economic life of Egypt and extended their dominion beyond Palestine and Syria up to the Euphrates. Amenhotep or Amenophis IV (1380-1362), was moved by his own belief in Aton as a supreme god and by the corruption he saw in the religious life of his time to attempt a religious revolution. There was opposition to this, resulting in subversion of authority inside the country, and loss of all the possessions outside Egypt proper. There was a revival under the nineteenth dynasty (1345-1205), when Egypt recovered all her possessions, and in spite of conflict with the Hittites became the pre-eminent power in the civilised world. Under the following dynasties there was a slow decline, and after about 1000 B.C. Egypt ceased to be a world power,



though it remained a centre of considerable cultural and economic activity for many centuries.

The history of Babylonia during the same period is a record of conflicts between the Hittites, the Kassites, the Mittani and the Assyrians. The Kassites ruled Babylonia for over 450 years, and the next people to build up a stable if barbarous empire were the Assyrians, whose period of supremacy lasted for about 500 years. It was followed by the new Babylonian empire, whose magnificence and achievements made such a deep impression on contemporaries that, as we shall see in the next chapter, they were willing to learn all they could from the Babylonians.

From the eleventh to the ninth century B.C., Phoenicians and Aramaeans, taking advantage of the periodic difficulties and eclipses of other powers, established a maritime commercial empire in the Eastern Mediterranean, an empire that was governed by economic interests and helped to spread civilisation westwards along the Mediterranean through its search for markets and for such raw materials as copper, amber and tin.

Of China during this period, very little is yet known. A dynasty of kings called Shang or Yin, ruled in the Yellow River plain (c. 1583-c. 1027), and remains of a civilisation with highly developed skills have been found near the modern city of Anyang. In the Wei valley, with its capital at Hao, the Chou dynasty ruled from about 1000 B.C.

From about 2000 B.C. onwards, a source not only of disturbance but often of destruction of civilised life is the expansion or migration of half-civilised or barbarian tribes. One such tribe, the Hyksos, occupied Egypt and were driven out after 200 years in 1580. The Hyksos were probably a Semitic people and their empire included Egypt, the Sinai peninsula, Palestine, Syria, a large part of the Fertile Crescent and what is now called Kurdistan. Theirs was one of the first empires.

The barbarian invasions which destroyed or transformed the earliest civilisations must be regarded as continuous. There was a constant movement of tribes from the central Asian and south-east European hinterland towards the sea, across the Bosphorus into Asia Minor and further towards Mesopotamia, Syria and Egypt. Some of them, such as the Mitanni

and the Hittites, are believed to have belonged to the Aryan race. Around the year 1200 B.C., there was an onrush of such tribes, who have been called the "People of the Sea," and the city of Knossos in Crete, which was the centre of a great culture, was captured and utterly destroyed by invaders from Greece.

The Aryans have created a number of problems which still defy solution. They are presumed to be a race because the group of languages, known as the Indo-European, must have had a common origin, which means that these languages must have originally been spoken by a race which multiplied and spread itself over Europe, Asia Minor, Iran and India. But the original habitat of this race has not been traced. We only see movements of these Aryan tribes. In India, Iran, Greece and Rome we see deep-rooted racial qualities in the people which are all different, and we cannot, without distorting facts, assume any racial characteristics common to them all. Their subsequent history also shows no common line of development.

The Aryans are believed to have begun settling in India around 1500 B.C. They came through the passes of the north-west and gradually spread out in the Punjab. Their conflicts with the Indus valley people can only be deduced from obscure references, but it was probably they who destroyed the civilisation of this area.

## II

In the age of the early empires, belief in gods and in the divine character and the divine rights of the ruler continues as the fundamental characteristic of political, social and economic life. But beliefs mingle with beliefs, as people with people, new elements are introduced in doctrine and ritual, the growth of the moral sense is clearly perceptible and the attributes of the gods change accordingly. After the expulsion of the Hyksos and the restoration of monarchical power in Egypt, the belief in many gods tends to merge into belief in supreme gods. The gods Amon and Ra become Amon-Ra; we have the trinity of Ptah-Amon-Ra, "three gods, together one." The popular cult of Osiris, the god of the dead, who in the people's mind

had also become the god of goodness, was taken over into the official religion. Also, as against the idea of goodness, there appears the principle of evil, in the form of a god of destruction, the serpent Apophis. Ra, the sun, was conceived as destroyed each day by the serpent and coming to life again by its own power. He becomes, like Osiris, the saviour god. Mysticism becomes prominent, man seeks to draw God closer to himself, and himself closer to God. The idea of divinity is no longer based only on myths. In the Egyptian texts, frequent mention is made of God, Neter, without giving him another name.<sup>1</sup>

The appearance of a mystical tendency implies that religion has penetrated deeply into personal life. Prayer and love of god, the idea of not returning evil for evil, of repudiating violence, of abstention from the infliction of suffering, of leaving things to the divine mercy, become important elements of religious life. In Egypt we even come across the formula, "he who weeps will be saved." This attitude in religion favoured, on the social plane, the democratic evolution which sustained a monarchy hostile to the privileges of the priests and the nobility and supported the idea of equality of all men before God.<sup>2</sup>

In this context it is easy to understand why Amenophis IV wanted to establish a universal monarchy on a universal faith, why he proclaimed an absolute monotheism, abolishing the cults of all the gods to replace them with belief in the one supreme god, Aton.

"How much is there" a hymn to Aton says, "that thou hast made and that is hidden from me, thou sole god, to whom none is to be likened! Thou hast fashioned the earth according to thy desire, thou alone, with men, cattle, and all wild beasts, all that is upon the earth and goeth upon feet, and all that soareth above and flieth with its wings.

"The lands of Syria and Nubia, and the land of Egypt — thou puttest every man in his place and thou suppliest their needs. Each one hath his provision and his life-time is reckoned."<sup>3</sup>

<sup>1</sup> J. Pirenne, *Les Grands Courants de l'Histoire Universelle*, p. 53. (Edition de la Baconniere, Neuchatel, 1947.)

<sup>2</sup> *Ibid.*, p. 52 ff.

<sup>3</sup> A. Erman, *The Literature of the Ancient Egyptians*, p. 290. (Methuen, London, 1927.)

The attempt to obtain recognition of Aton as a supreme god and the abolition of other cults was a premature measure, but the vested interests of the temples and the priests could not hold back the movement towards monotheism and a refinement of religious ideas.

The real development of monotheism, however, was in the religious thought of the Jews. They seem, like other tribes, to have had many gods, but the belief in one god was asserted again and again through prophets. The Jews were a tribe who wandered into Palestine in search of a home and, probably because their number was small, they could not establish themselves. Some time after the revival of the Egyptian kingdom in 1580, and probably as part of the search for cheap or slave labour, the Jews were transported to Egypt. According to one calculation in 1480, according to another in 1230, they were led out of the country by the prophet Moses. In the journey across the desert, on Mount Sinai, Moses had a vision of God and received the teachings which have come down to us as the Ten Commandments.

I am the Lord thy God, which have brought thee out of the land of Egypt, out of the house of bondage.

Thou shalt have no other gods before me.

Thou shalt not make unto thee any graven image, or any likeness of anything that is in heaven above, or that is in the earth beneath, or that is in the water under the earth.

Thou shalt not bow down thyself to them nor serve them: for I the Lord thy God am a jealous God, visiting the iniquity of the fathers upon the children unto the third and fourth generation of them that hate me: and showing mercy unto thousands of them that love me, and keep my commandments.

Thou shalt not take the name of thy God in vain; for the Lord will not hold him guiltless that taketh his name in vain.

Remember the Sabbath Day, to keep it holy. Six days shalt thou labour and do all thy work; but the seventh day is the Sabbath of the Lord thy God: in it thou shalt not do any work, thou, nor thy son, nor thy daughter, thy manservant, nor thy maidservant, nor thy cattle, nor the

stranger that is within thy gates: for in six days the Lord made heaven and earth, the sea, and all that in them is, and rested the seventh day: therefore the Lord blessed the Sabbath Day and hallowed it.

Honour thy father and thy mother: That thy days may be long upon the land which the Lord thy God giveth thee.

Thou shalt not kill.

Thou shalt not commit adultery.

Thou shalt not steal.

Thou shalt not bear false witness against thy neighbour.

Thou shalt not covet thy neighbour's house, thou shalt not covet thy neighbour's wife, nor his manservant, nor his maidservant, nor his ox, nor his ass, nor anything that is thy neighbour's.<sup>4</sup>

The Commandments are historically the first expression of religious belief in a precise, definitive form, the first instance of the fusion of religion and ethics, the first moral commands given in a manner direct and personal. They are the foundation on which the religious law of the Jews, the Christians and the Muslims is built. But the Ten Commandments, as well as monotheistic belief among the Jews, had to struggle against the tendency to accept "false gods" and against the imposition of alien beliefs, as happened when Palestine was ruled by the Assyrians. The changing character of the struggle to maintain belief in one god will unfold itself as we proceed.

In India, in the Rig Vedic age (c. 1500-800 B.C.), we have another picture of the evolution of religious thought. "In the hymns of the Rig Veda there is a freshness and simplicity and an inexplicable charm as of the breath of the spring or the flowers of the morning." These were among the first efforts of the human mind to comprehend and express the mystery of the world. The Rig Veda represents successive generations of thinkers and contains different strata of thought, beginning with naturalistic polytheism and proceeding to monotheism and later to monism.<sup>5</sup> But it does not deal exclusively with religious subjects, nor express an outlook which is exclusively spiritual. It is an important document for social history as well.

<sup>4</sup> *Exodus*, Ch. 20, verses 1-17.

<sup>5</sup> Radhakrishnan, *Indian Philosophy*, p. 66 ff.

Worship of nature as such is the earliest form of Vedic religion, but along with a multiplicity of gods whose attributes keep on merging into each other, we have also the concept of *Rita*, which literally means "the course of things," and denotes the order which sustains the world. Heaven and earth are what they are by reason of *Rita*.

"The dawn follows the path of *Rita*, the right path, as if she knew them before. She never oversteps the regions. The sun follows the path of *Rita*."<sup>6</sup> What law is in the physical world, that virtue is in the moral world. As soon as the conception of *Rita* was recognised, there was a change in the ideas regarding the nature of the gods, and in the last hymns of the Rig Veda we find the concept of abstract deities, as well as a pronounced monotheistic tendency. "Priests and poets with words make into many the hidden reality which is but one."<sup>7</sup>

Along with the development of religious thought, ethical notions also grow. "If we have sinned against the man who loves us, have ever wronged friend or comrade, have ever done injury to a neighbour who ever dwelt with us or even to a stranger, O Lord! free us from the guilt of the trespass."<sup>8</sup>

But in the Rig Veda we also come across strange utterances of incantations and spells, charms and witchcraft, hymns to inanimate things, devils, demons, etc. We have the charms of the robbers to lull the dwellers in a house to sleep, spells to prevent evil spirits causing women to miscarry, and charms to expel diseases.<sup>9</sup> It is supposed that these represent a foreign element which crept into the Vedic religion when the Aryans came into intimate contact with the original inhabitants of the country, who were partly Dravidians and partly aborigines, and whose religious conceptions were entirely different.

In the early Vedic times, sacrifices were offered to the deity in a spirit of reverence. There were no rules for worship, the presence of a priest was not essential. Later, side by side with the assimilation of the beliefs of other peoples, there was a tendency for religion to become a matter of prescribed acts and rituals, performed for the purpose of obtaining desired

<sup>6</sup> Compare the idea of *Rita* with *Ma'at*, p. 47.

<sup>7</sup> Radhakrishnan, *op. cit.*, 79 ff.

<sup>8</sup> *Ibid.*, p. 95.    <sup>9</sup> *Ibid.*, p. 117.



material ends. This phase is represented by the Yajur and Sama Vedas and the Brahmanas. Here the spirit of religion is in the background, the forms become all-important. The need for prayer books is felt, because importance is attached to words. Every prayer is coupled with a particular rite, which is believed to have effect only if performed under the guidance and according to the directions of a priest. There is a statement in the White Yajur Veda that a Brahman who has correct knowledge has the gods in his power. Thus the lordship of the priest was established.<sup>10</sup>

### III

The administrative structure of the states and the cities remained substantially the same in the age of the earliest empires as it was in the early days of civilisation. The priests and the royal servants were the two pillars which supported it. Because of the increase in population, in the scale and variety of economic activities and in the size and additional functions of the state, organisation became more elaborate, with greater division of labour, especially among the lower officials. The priests did not claim political power as a right, but the wealth of the temples and the religious and ritualistic importance of the priests kept on increasing, and in times of crisis their attitude could decide the fate of kings and kingdoms. We may assume that as regards government and the division of secular and religious authority, all the states had certain common features. But we also see three tendencies in determining the aims and methods of government, one represented by the Aryans in India, the second by Egypt, the third by the Assyrian Empire.

The Aryans in India do not appear to have felt any need for political experiments or for political ideas. They had no ambitious or hungry neighbours, and they were for centuries beyond the reach of migrating tribes. They were brave and virile and warlike enough to fight frequently among themselves, often for the glory of fighting; as they advanced eastwards the tribal areas grew into kingdoms, but they were not forced by circumstances to make any radical changes in their political

<sup>10</sup> *Ibid.*, p. 123.



system. The tribal ruler was and remained for centuries a kind of figurehead, with duties and rights prescribed by tribal custom and religious law. What is even more remarkable, the priestly caste, the Brahmans, in spite of their prestige, did not organise themselves as a priesthood. There were no temples, no temple estates, no temple economy. The Brahmans as a caste chose to remain dependent on gifts of the other castes, or they kept themselves materially and spiritually in a splendid isolation by leading a simple life, learning and teaching. History has, therefore, little to record by way of political events, apart from semi-legendary or legendary deeds.

We have already described one period of Egyptian history. In the era of empires we find that the Egyptian government exacted or permitted the priests and the nobility to exact forced labour and excessive taxes and rents. But in intention, even if seldom in practice, it was paternal. The duties which the king was originally expected to perform transformed themselves into a system under which the state took upon itself such tasks as fixing conditions of work, making laws relating to social hygiene, creating workers' tribunals for settling disputes and exempting the workers from some taxes which were likely to prove too much of a burden. There were periods in which we find the state keenly interested in the welfare of the people, and this was an example which remained enshrined in memory and influenced the policies of benevolent rulers of later times.

The states incorporated in the Egyptian Empire, when it extended towards West Asia, preserved their institutions and internal autonomy, paying only a collective tribute. The authority of the Pharaoh was maintained by garrisons posted at strategic points. The rulers subordinate to the Pharaoh had to submit reports and there was a regular postal service between the capital and the cities of the empire. The spirit of Egyptian imperialism was economic and not political.

The Assyrians, on the other hand, aimed at physical, military domination. For them war was not a means but an end in itself. They plundered, ravaged, massacred or deported whole populations. Terror became a method of conquest and the conquered were ruthlessly exploited. No effort was made to promote religious or cultural assimilation, or to

establish economic relations on a rational basis. The Assyrian Empire was the world's first military state, with hardly any basis for existence other than the strength of its armies. Assyrian kings ruled as absolute masters. They divided their territorial possessions into provinces, each of which had a governor and a staff of subordinate officials. Complete obedience was essential and every governor had to send regular reports to the king. Tribute for the government and tithes for the temples were exacted from each province. The supervision of the government was strict and punishments were harsh. But the Assyrian system of provincial government seems to have worked well enough to be later adopted and elaborated by the Persian Empire builders.

If we consider political organisation generally, we find that the government was in constant danger of playing into the hands of the priests and the nobility, and of losing its power to them. When the ruler was very powerful he was also liberal, and the temples received large donations in the form of land and goods, as also did the nobility. When he was weak, he found the larger part of the country's wealth in the hands of the priests and the nobles and he had to negotiate for their favours. The tendency among the nobility was to acquire as much power within their domains as possible and to give a feudal character to the state. The merchants, the artisans, the farmers and the labourers felt that only the king could protect them, and the absolutism of the monarch always found popular support.

The policies of states like Egypt and to some extent even Assyria were dictated to a large extent by economic interests, which meant possession of sources of raw material or free access to them, control of trade routes and development of industries within the frontiers of the state. The attraction of the sea tended to shift the centre of gravity of the economic life of Mesopotamia towards the Mediterranean. Here two tendencies came into conflict with each other, one represented by the cities and their commercial interests, the other by the kings and the nobility with their desire for territorial expansion and power. In those countries which, like Lydia and Egypt, were subject to the influences of both these tendencies, one sees later the nobility turning towards Assyria while the urban

and commercial population turned towards the Mediterranean — and maritime enterprise.

The cities of this age represent not only economic and commercial interests but a view of life different from that of priests, noblemen and conquerors. They were the centres of refinement in the arts and industries, in culture and behaviour. They provide us examples of laws made in order to keep money and goods in circulation, to enable the individual to exercise his initiative and maintain the independence necessary for the promotion of economic life. Babylon was the city which served as an example for all others. It was the world's economic and financial capital and, as a French historian has said, the hyphen connecting Western Asia and India. Babylon was so important that its language became the language of commerce and Babylonian law governed commercial transactions not only in Mesopotamia and Syria but also in Egypt. Among the cities of Syria some were urban republics, like Eunip or Ikrata, some were principalities dominated by the rich merchants, like Byblos, Tyre, Sidon, Arbad. Many of these cities possessed their own merchant fleets and were the markets of international commerce between the Mediterranean, Egypt and Babylonia. In Asia Minor there was, on the Hellespont, the city of Troy, which controlled the passage into the Black Sea. It was an industrial centre where international fairs were held. To the south were Miletus, Ephesus, Caria. The Egyptian cities which carried on trade with the Mediterranean were on the Nile delta. Ramases II built a special port at Pharos for trade with the Cretan cities and this trade continued actively for many centuries.

The cities of Phoenicia and Syria were so prosperous that their merchants were supposed to be richer than kings. They were governed in reality by oligarchies of ship-builders and merchants, from amongst whom the king was elected, if he was not chosen by the priests. The enormous prosperity which they enjoyed around the year 1000 B.C. provoked social movements, which in some cases aimed at replacing the king by annually elected magistrates, and which may generally be taken as the precursors of the social and political experiments of the Greek city-states. In spite of the destructiveness of barbarian invaders and conquerors, these cities preserved

civilisation and the laws of civilisation for the ages that followed.

In India, also, there were cities which were the centres of wealth and refinement. Their character and their importance has been obscured by the fact that the literature that has come down to us has a deep religious colour, and ignores material values. But we shall find later frequent mention of prosperous cities, wealthy merchants, goods of all kinds, and a well-organised system of trade based on cities. It appears highly probable that, as the Aryans with their tribal system and pastoral life advanced eastwards, the remnants of those representing the civilisation of the Indus valley also moved eastwards, till the Aryan expansion had spent its force. The cities mentioned later are all in Bihar or Central India, or on the border-line between the Aryans and the non-Aryans. They did not spring up at once, nor did the skills on which their trade and prosperity was built up. They must have been developing quietly while the Aryans were cultivating their spiritual economy in the area occupied by them, and creating a theoretical pattern of life without reference to — perhaps without knowledge of — actual facts. The condemnation of city life in the Grihiya Sutras — “It is impossible for one to obtain salvation who lives in a town, covered with dust” — and the injunction of the Dharma Sutras to avoid going into towns, visiting foreign places, learning a tongue spoken by barbarians<sup>11</sup> express a resentment against civilisation that did not have any serious effect.

One of the decisive factors in the political events was the organisation of the army and the use of chariots and weapons made of iron. In Egypt, after the expulsion of the Hyksos, the method of conscription is said to have been reintroduced, which shows that it was an older practice but must have been revived on a larger scale. As a result of peace and prosperity the Egyptians began to dislike military service, and an army of professional soldiers had to be built up. The barbarian invaders, and semi-civilised tribes like the Hittites, had the advantage of all being soldiers and of looking upon fighting as a major activity. They had the advantage also of possessing iron weapons, compared to which the bronze axes and spears

<sup>11</sup> *Cambridge History of India*, Vol. I, pp. 237-248.

of the Egyptians and the Babylonians were not very effective. But their main superiority lay in their use of horse-drawn chariots, which gave them a greater mobility than their opponents.

It appears from accounts of the battle at Kadesh, on the river Orontis, between Ramases II and the Hittite king in 1278 B.C., that by clever use of his comparatively smaller army, the Hittite checkmated the Pharaoh's forces, whose commanders could not change their traditional methods of fighting. The successes of the Assyrians were due in large measure to their innovations in the use of cavalry and chariots. The history of the different peoples henceforth is often made or marred by the care devoted to the organisation and equipment of the army and the study of the art of war.

In the period of the early empires we see the beginning of a system of international relations. As already stated, the territorial expansion of the Egyptians was inspired by economic motives, and their interest, therefore, lay in maintaining peaceful relations and goodwill. But because of rivalry with the Hittites and other powers for the possession of Syria, the Pharaohs were also forced to make alliances for the prevention of aggression or for assistance in war. They also began the practice of marriages for political purposes. The Hittite kings were throughout very active diplomatically, because of their rivalry with Egypt, and a Hittite king was able to defy the might of Ramases II because of his shrewdness in being able to enlist the support of neutral powers. The treaty between him and Ramases II in 1278 B.C., which ensured peace for fifty years, has been found engraved on tablets at Tel-el Amarnah. It is the first treaty of non-aggression and one of the most impressive and edifying documents of international history.

A diplomatic protocol recognised by all states governed the correspondence between the chancelleries. Ambassadors were protected by diplomatic immunity, and could travel freely from capital to capital. This was not only the practice in that part of the world with which we are dealing. Ambassadors from China arrived in Egypt in 1110 B.C., and they must have undertaken the long journey because of some assurance of safety. Treaties of friendship were made between powers and

they had the same form, no matter between whom they were concluded. Such treaties contained a clause which protected the property of those whose relationships were covered by it. We have the record of a case in which the goods left behind by a wool merchant of Cyprus, who died while travelling in Egypt, were taken charge of by officers of the Egyptian government. An inventory of these goods was made and they were sent to Cyprus through diplomatic channels. There were other aspects of life in which the development of a law of nations stimulated the growth of private international law. Foreigners could legally marry Egyptians. Syrians preserved their national identity even though subjects of the Egyptian Empire, and they worked as bankers or fitters in Egyptian cities. Aegeans from across the Mediterranean could also settle in Egypt, and they possessed important trading houses in the cities.

A study of the main trade routes is very helpful in understanding the economic and commercial life of this period and how civilisation spread further. It will be remembered that there was a caravan route leading from the Indus valley across the Iranian plateau and Elam to Sumeria. This was connected with internal trade centres in India, leading eastwards and southwards. There was also coastal shipping between peninsular India and the Persian Gulf, and up the Euphrates to Babylon. From Babylonia down the Euphrates and along the western coast of the Persian Gulf, a caravan route led to Oman. Ships plied on the Red Sea carrying goods to and from Egypt and Punt. Mesopotamia was the economic centre of the ancient world because it was the highway from India to Egypt and West Asia. Byblos and other cities of Syria and Phoenicia assumed more and more importance as the trade between Mesopotamia and Egypt grew. Byblos was a big market for the metals of the Taurus and the wood of Lebanon. As the kingdoms of the Hittites, the Mitanni, and the Assyrians were formed and navigators adventured into the Black Sea for the iron ores of Taurus and the gold of Colchis, trade routes were formed across Asia Minor connecting the Black Sea and Troy and Ephesus to the Hittite capital, Hattous, while other routes connected Hattous and the Taurus mountains with the cities of Syria and Mesopotamia. There was a series of sea routes connecting Crete with what is now



the mainland of Greece, the Aegean Islands, the cities on the west coast of Asia Minor, Cyprus, the cities on the Syrian coast and on the delta of the Nile. The merchants of Phoenicia and Crete were gradually exploring the Western Mediterranean, and by the end of this period they had crossed the Sicilian and Tunisian straits and reached Spain and proceeded beyond the Straits of Gibraltar. Carthage, on the Tunisian coast, was founded about 800 B.C. and the Etruscans, an Asian people, established themselves in Italy after the break-up of the Hittite Empire around 1200 B.C.

Trade and commerce along these routes required the support of political authority and money for investment. The Egyptian government controlled all the trade along the Red Sea as a state monopoly. But Egyptian trade in the Mediterranean was left to private initiative. As a part of their imperial policy, the Pharaohs gave loans to the kings of Babylon, of the Mitanni and of Assyria, hoping thereby to perpetuate their dominance in politics as well as in commerce. The Egyptian merchants accumulated great wealth, which they invested in their international maritime trade. Syrian merchants carried on a banking business. In all the important cities the merchant class acquired great wealth. At Ephesus, the family of Melas played a very important role by providing the kings of Lydia with the credits necessary for carrying out their policy. At Miletus, the ship-builders introduced a new form of currency by bringing into circulation ingots of silver, stamped with their names.<sup>12</sup>

The introduction of currency, although it was gradual, revolutionised economic life. Because of it, prices and the standard of living rose, and there grew up a class of money-lenders who did big business with merchants and lent money to needy peasants and craftsmen at exorbitant rates of interest. This not only depressed the peasant and the craftsman still further, but increased slavery, as debtors could be enslaved. Among the money-lenders the most prominent were the temples; the nobles and petty princes also lent money to their serfs. Thus a situation was created which intensified social unrest and led to revolutions and to experiments in social and political organisation. In 720 B.C., Bocchoris, a king of the

<sup>12</sup> Pirenne, *op. cit.*, p. 100.



Nile delta, began an anti-feudal and democratic policy which was most enlightened. He cancelled all debts not confirmed by a written contract, liberated the properties confiscated and the persons enslaved, abolished bodily constraint and proclaimed the right of every person to be told why he was arrested or imprisoned. At the same time, to promote and organise transactions, he published a code of contracts, reduced the rate of interest to 33 per cent and limited interest on arrears to 100 per cent of the capital loan. He gave the same legal status to movable and immovable property and made landed property inalienable.

While currency was being introduced the old system of barter also continued. We have documents of the Ramesside period of Egypt from which interesting information can be gathered about business transactions. In one such document it is related that :

"One day the merchant Re-ia approached the townswoman, Erenofre, with a little Syrian girl slave and said, 'Buy this girl and give me a price for her.' Erenofre bought the girl, paying for her, according to her later deposition in court :

One shroud of Upper-Egyptian cloth :

One blanket of Upper-Egyptian cloth :

One djayb-garment of Upper-Egyptian cloth :

One dress of fine Upper-Egyptian cloth.

"This was not enough. Erenofre, therefore, borrowed various objects from neighbours and friends: bronze vessels, a pot of honey, shirts of Upper-Egyptian cloth and broken copper, and with these she made up the price 'in objects of all kinds'."<sup>13</sup>

Classes came into existence along with civilisation. The priests of the temples, the kings and their families, noblemen, officers of the king and the merchants formed the dominant classes: the artisans, the farmers, the unskilled labourers, the slaves were the lower classes. The relationship between them, in the period of the early empires, was of two kinds. It was

<sup>13</sup> *Journal of World History*, Vol. I, No. 4, p. 907. (Librairie des Meridiens, Paris.)

either based on hereditary rights and duties, and may be called feudal, or it consisted in payment of wages for work, according to some contract. In the countryside it was feudal, in the cities it was mainly contractual. The farmer who cultivated the land of the nobleman or of the temple worked under an arrangement by which he was bound to the land, obliged to produce crops and to surrender the produce to the landlord, who allowed him to retain a part of the surplus. The labourer on the farm worked under even worse conditions, specially because the number of slaves kept on increasing.<sup>14</sup> In the cities it was not to the interest of the merchants to employ people on a hereditary or permanent basis and thus undertake to provide the minimum that would keep them alive. It was better for them to hire as much skilled and unskilled labour as was necessary for their industrial workshops, though for domestic service they kept servants and slaves.

There was also opposition between the merchants of the cities, who wanted the largest amount of freedom to carry on their business and acquire as much wealth as they liked, and the noblemen and landlords, who wanted as much power and riches as was possible assured to them because of their rank and social position. In Crete, where the merchants of the cities obtained the upper hand, there was a revolution about the year 1450 B.C., the castles of the noblemen were burnt and feudalism was wiped out. In other parts of the civilised world, power passed from the cities to the noblemen and from the noblemen to the cities, depending on how strong the ruler was. As already stated, the poorer classes and the merchants wanted the ruler to be strong, because only he could save them from the excesses of the noblemen and the greed of the priests.

In the literature of ancient Egypt there are documents of great interest consisting of warnings and exhortations to school boys by their teachers. They were composed by people who, like many people in our own days, thought that the best thing in the world was to learn reading and writing and become a scribe, or, as we would say, a clerk. Other professions are, therefore, presented at their worst. But the worst also can be

<sup>14</sup> The temples of Thebes in Egypt possessed 246,000 hectares of land and 80,000 foreign slaves.

true in a large number of cases, and the views of the scribes who wanted to produce more scribes are, for this reason, worthy of consideration.

"I am told, thou dost forsake writing, thou givest thyself up to pleasures; thou settest thy mind on work in the field, and turnest thy back on the god's words. Dost thou not bethink thee how it fareth with the husbandman, when the harvest is registered?<sup>15</sup> The worm hath taken half of the corn, the hippopotamus hath devoured the rest. The mice abound in the field, the locust hath descended, the cattle devour, and the sparrows steal. Woe to the husbandman!

"The remainder, that lieth upon the threshing floor, the thieves make an end of that . . . the pair of horses dieth at the threshing and ploughing.

"And now the scribe landeth on the embankment<sup>16</sup> and will register the harvest. The porters carry sticks and the negroes palm-ribs.<sup>17</sup> They say, 'Give corn.' There is none there. He is stretched out and beaten; he is bound and thrown into the canal. . . . His wife is bound in his presence, his children are put in fetters. His neighbours leave them, they take to flight, and look after their corn.

"But the scribe, he directeth the work of all people. For him there are no taxes, for he payeth his tribute in writing, and there are no dues for him. Prithee, know that."

Another document of the same type says:

"Ah, what meanest thou by saying: It is thought that the soldier is better off than the scribe?"

"Come, let me tell thee how a soldier fareth, the oft-belaboured, who is brought, while yet a . . . child, to be shut up in the barracks. He receiveth a burning blow on his body, a ruinous blow on his eye, a blow that layeth him out on his eye-brow, and his pate is cleft with a wound. He is laid down and beaten, like a document. He is battered and bruised with flogging.

<sup>15</sup> That is, the taxes are deducted from it.

<sup>16</sup> He has come up or down the river by boat.

<sup>17</sup> The porters seem to be minor officials, the negroes policemen.

"Come, let me tell thee how he goeth to Syria, and how he marcheth over the mountains. His bread and his water are borne upon his shoulder, like the load of an ass; they make his neck as . . . that of an ass, and the joints of his back are bowed. His drink is stinking water. He falleth out only to keep watch. When he reacheth the enemy, he is like a trapped bird, and he hath no strength in his limbs.

"If he cometh back home to Egypt, he is like wood that the worm eateth. He is sick and becometh bedridden. He is brought back upon the ass; his clothes are stolen; and his servant hath run away."

The professions of the charioteer, the priest and the baker are described in the same disparaging way, so that no young man who has the chance of becoming a scribe, and later a government officer, will be so misguided as to adopt another profession.<sup>18</sup>

We find, side by side with the results of a developed economy and advanced social life, tribes with a simple organisation, based on the idea of the equality of all the members. Here also there are, no doubt, kings, priests, elders, noblemen. But the rest, the main body of the tribe, are not depressed. Among the Aryan tribes of the early Vedic age in India the carpenter, the smith, the wheelwright are not artisans depending on their employers for food and clothing, but full and free members of the tribe, honoured for their skill.

However, it was in India that a system of castes was evolved, the like of which is not found anywhere else in the world. It is believed that the Aryans established this system in order to ensure the purity of their race, but it cannot be proved that in practice caste has always been based on race. There have also been so many gradations within the castes that the belief that there are four castes appears to be only a hypothesis; a legal fiction. Researches into the origins and working of this system have not yielded satisfying results, and perhaps the most reasonable assumption would be that the caste system was an answer to the question of how the status of the various elements constituting society was to be fixed. The Brahmans, who declared the law, were able to make it a means of

<sup>18</sup> Erman, *op. cit.*, pp. 193-197.

establishing their own status in whatever manner they thought fit. There was no belief in the divine right of kings to restrain them from going too far, and, as we have said, though there was fighting between the Aryans and non-Aryans and among the Aryans themselves, it was not of a kind to create conditions of insecurity in which the priests by themselves would be quite helpless. The Brahmans continued to declare the law, adapting and modifying it in details to suit local conditions, and belief in the truth and justice of the law of castes became so deep-rooted that it was assumed to be identical with "dharma" and to comprehend every detail of personal and social life.

In Sumeria and Egypt, as we have seen, writing was begun very early and gradually refined and systematised to meet requirements. Commercial and political relationships enabled people to derive benefit from each other's experiments and innovations. The Babylonian language and the cuneiform script were given international status by the Pharaohs and the merchants of cities carrying on international trade. About the year 1000 B.C. the Phoenicians evolved the first alphabet, which considerably stimulated the development of writing.

In India, no system of writing was evolved in the Vedic age; education consisted in teaching by word of mouth. It seems probable that the Brahmi script, based on the oldest Semitic writing, was introduced into India by traders from Mesopotamia about 800 B.C. The twenty-two letters of this script were increased to forty-six, and worked out on phonetic principles. They must have become current by 500 B.C., because this is the alphabet recognised in Panini's grammar, written some time in the fourth century B.C.

The centres of education in Mesopotamia, Syria and Egypt were mainly the temples, but there were also state schools where the purpose of education was to provide society with people competent to deal with all types of secular work, so that the government could maintain its records and businessmen their accounts. Here all classes of the population came together. Writing became a means not only of preserving what was known, but of expressing and of spreading new ideas; it was henceforth an essential element of culture. Knowledge, past and present, was honoured. The Assyrian

king Ashurbanipal, who was otherwise ruthless and inflicted punishments which make our hair stand on end, was proud of being a patron of letters. He had all the classics of Sumerian and Babylonian literature copied out and collected in his library at Nineveh, where they have been found almost intact after 2500 years.

## IV

The age of the early empires was not an age of discovery. It was an age of refinement, in which the traditional techniques were perfected to produce articles of great aesthetic value. The cities were admirably planned, and the houses richly provided with amenities. The treasures of art discovered in the tomb of Tuten-Khamon, the frescoes of the palace of Knossos, the specimens of gem-cutting, ivory-carving, metal-work and pottery found in Crete are masterpieces which subsequent ages can look upon with pride and envy. But so far as the application of scientific knowledge is concerned they represent only minor improvements.

The only advance made in this period was in the use of horses for transport and riding, but horse-shoes had not been invented, and this limited the usefulness of horses. Another invention of this period was the spoked wheel, which came to be widely used and which made the chariot a lighter and much more serviceable means of transport. It was the horse-drawn chariot which enabled empires like the Egyptian and the Assyrian to maintain their communications.

The most significant discovery of this period, however, was iron. It was first used for making ornaments, and only gradually for other purposes. A tribe living in the territory of the Hittites discovered a method of "steeling" which made iron really valuable for the manufacture of weapons and tools. For 200 years, from 1400-1200 B.C., the Hittite kings kept this process a secret. Then it gradually became known and spread in the Near East and along the coast of the Mediterranean. The Iron Age proper is, therefore, supposed to begin from 1200 B.C. The use of iron tools, which were cheaper than those of copper and bronze, led to a wide diffusion of industry and civilisation. The iron plough made agriculture much more



productive and iron tools enabled crafts like carpentry and stone-masonry to be practised much more widely.

The craft of the carpenter and the smith were the only ones held in honour by the ancient Aryans, because the production of chariots and weapons depended on them. But we find, in the age of the Brahmanas (c. 1000-800 B.C.), hunters, fishermen, fire-rangers, ploughers, charioteers and chariot-makers, goldsmiths, smelters, basket-makers, rope-makers, weavers, dyers, embroiderers, makers of bows, carvers, potters, seasoners of food, cooks, butchers. Acrobats and musicians provided entertainment, astrologers warded off misfortunes and foretold happy events. There were also merchants and usurers. There was a more extended knowledge of metals, and tin, lead, silver, red "ayas" and black "ayas," probably copper and iron, were worked.

The knowledge of astronomy among the Aryans increased in course of time, and the lunar calendar was amended to make up a year of 360 days by adding an intercalary month. Physicians seem to have added to their knowledge but lost their formerly high social status. The Atharvaveda mentions many diseases, fever, consumption, haemorrhoids, abscesses, scrofula, dysentery, boils, swellings, tumours on the neck, convulsions, ulcers, scab, rheumatism, tearing pains, headache, leprosy, jaundice, cramp, and various eye-diseases. Some knowledge of anatomy was acquired through dissection of animals sacrificed<sup>19</sup> and we have in the Atharvaveda and also in the Satpatha Brahmana a precise enumeration of the bones of the human skeleton. But the relation between medicine and magic is not broken, demons are acknowledged as causes of disease and charms and spells are recommended as remedies.

<sup>19</sup> *Cambridge History of India*, Vol. I, pp. 136-138.



## CHAPTER V

# THE SPIRITUAL REVOLUTION (600 B.C.—A.D. 200)

### I

THE empires, the city-states, the migrations and onslaughts of barbarians on the centres of civilisation, the building up of empires by new peoples on the ruins of the old, the expansion of the area of trade and civilisation, the diffusion of skills, continues after 600 B.C. on what seems to have become an established pattern. There is considerable advance in organisation, and we can see distinction being made between religious ideas and political ideas. But the outstanding feature of the age which follows the period of the early empires is an awakening of the moral sense, an unfolding of man's being, like the blossoming of a flower, which brings to the surface what had remained till now hidden and obscure. We do not find any unexpected change in the conditions of life. Man himself changes. He understands more clearly, his beliefs are more defined, he attempts to direct his actions himself, he takes upon his own shoulders what had so far been the responsibilities of divine rulers, priests and gods. This is the age of the spiritual revolution.

The changes in belief would have taken place in any case, because they were the result of man's growth as man. But we would be taking them out of their historical context if we did not have a picture of the main political events. We shall, therefore, consider these first.

### II

By 600 B.C. the power of Egypt had declined, and the Assyrian Empire had been destroyed (612 B.C.), but Babylon soon became the capital of a new empire (604 B.C.). The city-states on the west coast of Asia Minor were now dominated by a new race, known to history and to their eastern neighbours as Ionians (Sanskrit: Yavana, Persian and Arabic: Yunani). They and the city-states of Greece and Italy inherited the

traditions of the ancient city-states. We thus find the two major forms of state continuing, and providing fresh opportunities for experiments in the organisation of political and economic life.

In Persia, Cyrus, who belonged to a dynasty called the Achaemenian, established an empire in 550 B.C., by destroying the power of the Medes.<sup>1</sup> He defeated the combined forces of the Ionian cities in 540, and captured Babylon in 539. His son, Cambyses, conquered Egypt in 525, and Darius the Great, who succeeded Cambyses, added Thrace and Macedonia in the west, Caucasus and a part of Central Asia in the north and Afghanistan, Baluchistan and the Indus valley in the east, to the empire. The glory of the Achaemenians lasted for about a century, and then there was a decline. In 331-330 B.C., Darius III was defeated and killed and the empire passed into the hands of Alexander of Macedon, who had already brought the city-states of Greece under his rule and conquered Egypt. In China, the very strong and energetic personality of Shih Huang-ti (229-221 B.C.) succeeded in establishing a centralised state, which under the Han dynasty (206 B.C.-A.D. 220) gradually expanded till the Emperor Wu-ti (140-87 B.C.) could claim to rule over an empire that stretched from Korea to the Caspian Sea and from Manchuria to Annam. Almost contemporary with the Han Empire was the Parthian kingdom (240 B.C.-A.D. 224), which extended over the region between the Euphrates and the Indus, the Caspian Sea and the Indian Ocean. This kingdom was carved out of the eastern part of Alexander's Empire.

It is during this period that we find India in close political contact with neighbouring countries and specially West Asia. Darius the Great sent out an expedition to explore the Indus valley in 521 B.C., and later annexed probably the whole of the valley to his empire. This, we are told, was the richest province of the empire and paid the largest tribute. It must, therefore, have been economically developed, but we have no evidence of this from Indian sources. When Alexander had conquered Persia, he marched up to the banks of the Beas, and with this event is connected, in a manner not quite clear,

<sup>1</sup> A people who migrated into Persia from Central Asia. The capital of their empire was Ecbatana.

the establishment by Chandragupta of the Maurya Empire, with its capital at Pataliputra, in Magadha. Here we have records of two dynasties, the Saisunagas and the Nandas; and Chandragupta is supposed to have dispossessed the last Nanda king with the help of a shrewd intriguer, Chanakya or Kautilya. Chandragupta rapidly expanded his dominion and was in a position, by 305 B.C., to meet the challenge of Seleucus, who had succeeded to the eastern part of Alexander's Empire, and even to wrest some provinces across the mountains of the north-west from his Greek rival. Under Chandragupta's grandson, Ashoka, the Maurya Empire extended over almost the whole of India. After him, it broke up and India was again divided into small states with the Greeks, the Parthians, the Sakas and finally the Kushans contending for power in the north-west. The chronology of this period is obscure, but its cultural importance is very great, because north-west India now became the meeting ground of the Persian, the Greek and the native Indian cultures. The Persian concept of empire and kingship had already been assimilated by the Mauryas; now we find the arts and the skills of Greece and Persia being introduced into India under the inspiration of Buddhism. This period coincides with the era of Chinese expansion and marks the beginning of the advance of Buddhism towards Central Asia and China. In the first and second centuries A.D., the Kushans established themselves in the north-west and the emperor Kanishka ruled over the whole of north India, with dependencies and perhaps provinces in the Deccan. Kanishka was converted to Buddhism and made it the state religion. Because of this, cultural contacts became closer and more real, and opened the way for the assimilation of new ideas and new aesthetic standards in India.

In the west, the rise of Rome followed the decline of the Greeks. Rome was a city state that gradually overcame its neighbours and annexed their territory, till by 265 B.C. it ruled over the whole of Italy south of the Po. The wars with the Phoenician city of Carthage (264-146 B.C.) led to the acquisition of Corsica, Sardinia, Sicily and Spain, and then the Romans turned eastwards, overpowering Macedonia and Greece (197 B.C.) and defeating Antiochus, the king of Syria (190 B.C.). Julius Caesar, the great Roman general, conquered Gaul

of his days wasting much time and effort in philosophical disputations and he was determined to avoid getting involved in them. He did not define the ultimate reality, or God.<sup>2</sup> He did not define *Nirvana*, the state of supreme bliss which it should be man's endeavour to attain. He insisted that each man should think. If he did, he would find that "whatsoever is an arising thing, that also is a decaying thing," that nothing physical or material can be real, and attachment to unreal things can only lead to sorrow. Release from sorrow cannot be obtained through sacrifices and ritual, but only through right beliefs, right aspirations, right speech, right conduct, right mode of livelihood, right effort, right-mindedness, right concentration. All these means of release from sorrow each man had to find for himself, his salvation would be the result of his own moral striving, and could not be brought about by any person or power outside him. He should follow the path shown by the Buddha, the Middle Path between self-mortification and self-indulgence, "a path which opens the eyes and bestows understanding, which leads to peace, to insight, to the higher wisdom, to *Nirvana*." Taking this Middle Path implied detachment from everything material and transient, from personal possessions, joys, sorrows; it also implied attachment to all living and suffering beings, and the cultivation of an all-embracing goodwill and love. The good Buddhist was not only asked to realise the vanity of all material things, he was enjoined to dedicate himself to the service of all, to save them from ignorance, from false beliefs, from sorrow.

The Buddha did not put down his teachings in a form that would enable them to be taught after him. His followers repeated what they had heard and learnt by heart and compared what they had remembered. They were people who had given up the ordinary way of life and become *bhikkus* (monks). Apart from these monks, who constituted the Sangh, the religious community would have consisted of people who honoured the monks, gave them alms and provided for their clothing and shelter, listened to their discourses and asked them

<sup>2</sup> It is, however, said in *Udana*, VIII 3: "There is an unoriginated, an unmade, an uncompounded; were there not, O mendicants, there would be no escape from the world of the born, the originated, the made, the compounded." Radhakrishnan, *op. cit.*, p. 379.

for guidance. There was probably nothing more to distinguish them in externals from other people.

The Buddha had used current terms to explain his teachings of how to obtain release from sorrow, how to attain *Nirvana*. He avoided discussion of the terms themselves. He did not enumerate or define the things to be believed and not to be believed, he did not command and forbid. This created difficulties later. His followers had to answer questions about what they believed and why. They were missionaries and went far and wide. They settled at distant places, and could not come together easily. When differences arose they could not be resolved without great effort. It is for this reason that the Buddhist community became divided into many sects and these sects grew up independently.

In course of time we see the interpretation of the Buddha's teachings taking two main directions. One is represented by the group of sects collectively called Hinayana. They laid emphasis on the spiritual effort of the individual and considered monastic life essential, because the goal of spiritual effort was the attainment of *Nirvana*. For this reason we would say that the Hinayana adopted a rather exclusive view, and limited the number of people who could be included in the religious community. The Mahayana sects were more inclusive, and in course of time they made Buddhism into a popular religion. The distinguishing features of Mahayana doctrine are: (1) The worship of the Buddha, who ultimately came to be regarded as God, eternal, without origin and decay, the truth, the end of all existence; worship of "chaityas" or shrines where some relic of a saint was preserved, and later worship of other gods also; (2) taking refuge in the Buddha, the Dharma and the Sangh; (3) confession of sins; (4) cultivation of such virtues as liberality, righteousness, forbearance; (5) acknowledgement of the virtues of others; (6) dedication to the service of all living beings. The Mahayana sects retained the practice of monastic life and their rules for this did not differ materially from those of the Hinayana, as we have evidence of monks of both sects living together.

In spite of the fundamental importance of love and goodwill, the preponderant tendency in the Buddha's doctrines is one of detachment and contemplation. Zoroaster (c. 660-563 B.C.)

conceived of the universal order as being a constant struggle between the forces of good and evil. The supreme embodiment of the good is Ahura Mazda; his opponent is Ahriman. Man's duty is to serve Ahura Mazda, to follow the Golden Rule, "to make him who is an enemy a friend, to make him who is wicked righteous; and to make him who is ignorant learned." A man must be benevolent as well as honest and pious, since "that nature alone is good which shall not do to another what is not good unto its own self." Zoroaster's ethical teaching is brought into relief by the doctrine that Ahura Mazda has given man the freedom to do good or evil, as he wills. He will suffer the torments of hell for evil deeds and be rewarded in heaven for all the good he does. His fate after death will be determined by a brief and unsparing judgement. Zoroaster also taught that the appearance of a prophet was Ahura Mazda's final appeal to mankind to mend their ways. He strengthened the faith of his followers by the promise of a final victory of Ahura Mazda and of a state of heavenly bliss thereafter. Here Zoroaster's teaching approaches closely to the beliefs of the Jews, the Christians and the Muslims.

Though in the order of time Christ (c. 4 B.C.—A.D. 30) came some 500 years after Zoroaster and the Buddha, the events of his life cannot be described with certainty, and it is very difficult to summarise his teachings. He belonged to a community which had an ancient law, a long line of prophets and an intense belief in the one God. It was a community that had suffered for centuries from violence and all kinds of injustice at the hands of its neighbours and of the Egyptians, the Assyrians, and the Romans, a community which had also often to confess that it had sinned shamefully against itself and against God. When Christ was born, the Jews were under Roman rule, hoping and praying for deliverance. But they had no political or religious leadership, and there was great poverty and misery. It was inevitable, therefore, that the teachings of Christ should be seen in a particular historical perspective by his immediate followers and those who received the message through them. But we can look at them in the wider context of world history. It will then appear that Christ's conception of the universal order was an all-pervading love. The traditional beliefs and the traditional rules of conduct



were not rejected, but a new morality was preached which emphasised love to such an extent that the old system was undermined. The Sermon on the Mount, a supremely courageous utterance, pictures the world as it should be and therefore is:

Blessed are the poor in spirit: for theirs is the Kingdom of Heaven.

Blessed are they that mourn: for they shall be comforted.

Blessed are they which do hunger and thirst after righteousness: for they shall be filled.

Blessed are the merciful: for they shall obtain mercy.

Blessed are the pure in heart: for they shall see God.

Blessed are the peace-makers: for they shall be called the children of God.

Blessed are they which are persecuted for righteousness' sake: for theirs is the Kingdom of Heaven.

The standards of the new ethics are very far above ordinary human behaviour. "But I say unto you, that ye resist not evil, but whosoever shall smite thee on thy right cheek, turn to him the other also." "Love your enemies, bless them that curse you, do good to them that hate you, and pray for them which despitefully use you and persecute you: that ye may be the children of your Father which is in heaven: for He maketh His sun to rise on the evil and on the good, and sendeth rain to the just and the unjust." "Be ye therefore perfect, even as your Father which is in heaven is perfect."<sup>3</sup> There can be no doubt that these standards would be comprehensible only to those who can respond to their passionate idealism and surrender themselves unconditionally to Love as the eternal, universal order. But that does not affect their spiritual value.

The teachings of the Buddha, Zoroaster and Jesus Christ, did not aim at reforming social conditions by laying down laws based on a higher sense of justice. Their purpose was to convert the individual to a higher way of life, to awaken and activate his moral sense, his conscience, to fill his heart and soul with the desire for fulfilment and perfection. They gave to the individual human being a spiritual position, a

<sup>3</sup> The Gospel according to St. Mathew, Ch. 5.



moral authority, which he had never possessed before. Zoroastrianism, however, could not for long protect itself against superstition and the vested religious interests. Darius the Great made it the religion of his empire, but it failed to become one of the world religions, although its teachings deeply influenced subsequent religious thought. Buddhism and Christianity became world religions, embodying themselves in organisations which we shall describe in the next chapter.

These three religions are the first aspect of the spiritual revolution. The second aspect is represented by the Upanishads. Historically, the older Upanishads represent beliefs and ideas of sages who may have lived two or three centuries before the Buddha, but the teachings of these sages appear to have influenced only the limited number of people who desired to devote their life to the search for reality. They did not take the form of a religion; we know only the names of the sages and probably only a small fraction of their teachings has come down to us. In a recently published book, a German scholar<sup>4</sup> has tried to show that the earliest Upanishads consist of the teachings of 109 philosophers, extending over five generations. This theory has yet to be examined by Sanskritists and philosophers, but it seems more convincing than the current view that the Upanishads represent one system of growing and changing thought.<sup>5</sup>

"The aim of the Upanishads is not so much to reach philosophical truth as to bring peace and freedom to the anxious human spirit."<sup>6</sup> The advance they make "consists in an increased emphasis on the monistic suggestions of the Vedic hymns, a shifting of the centre from the outer to the inner world, a protest against the externalism of the Vedic practices." They "recognise only the spirit, almighty, infinite, eternal, incomprehensible, self-existent, the creator, preserver and destroyer of the world."<sup>7</sup> This is Brahman, and the supreme fulfilment of man consists in the realisation of the identity of

<sup>4</sup> Walter Ruben, *Die Philosophie der Upanischaden*. A. Francke, Bern, 1947.

<sup>5</sup> Dasgupta, *A History of Indian Philosophy*, Vol. I, p. 50 (Cambridge, 1922).

<sup>6</sup> Radhakrishnan, *op. cit.*, p. 138.

<sup>7</sup> *Ibid.*, p. 144.

Brahman and his own real self, Atman. But since from our human point of view it is not possible to describe the fullness of the ultimate reality, this state of freedom and bliss, when the identity of Brahman and Atman is realised, is described both as a state of likeness to God and as a state of oneness with God.<sup>8</sup>

Apart from this central spiritual theme, we have speculations in the Upanishads regarding the nature of matter. It is there that we find for the first time the doctrine of the five elements, earth, water, fire, air, and ether. We have indications, elaborated later in the Sankhya and Yoga systems, of the dualism of spirit and matter. The idea of Karma also occurs first in the Upanishads, as a view that every deed must produce its natural effect in the world as well as leave an impression on or form a tendency in the mind of man.<sup>9</sup>

The third aspect of the spiritual revolution is the movement to idealise and thereby establish more firmly the existing beliefs and practices. This movement is represented in India by the epics, the Mahabharata and the Ramayana, and the Dharmashastra. The Vedic religion appears in them as Dharma, an all-comprehending system of belief and law, and the individual life is ideally divided into a period of study, a period of activity, a period of retirement and a period of solitude and contemplation. The law and its idealisation as Dharma, a reflection of the unalterable human order, are a combination of belief and social organisation such as is not seen anywhere at any time in human history, and as a religious and social form it has proved to be more enduring than any human institution.

The most eloquent expression of this spiritual and social consolidation is the Bhagvadgita. As we have it now, it forms a part of the Mahabharata, and from the doctrines as well as the names mentioned<sup>10</sup> it appears to be the consummation of a movement. It rejects the formal, ritualistic religion, but seeks to fuse other tendencies and schools of thought<sup>11</sup> into an organic, inspiring unity. The ways of knowledge, of action and meditation are all recognised and assimilated, the discipline of Yoga and the doctrines of the Sankhya school are explained. They all lead up to the crowning feature, the way of devotion,

<sup>8</sup> *Ibid.*, p. 238.      <sup>9</sup> *Ibid.*, p. 247.

<sup>10</sup> Rama is mentioned as a model warrior in X.31.

<sup>11</sup> Two stanzas, Ch. XIII, 8-9, have a strong Buddhistic colour.

the way of union with the divine. The social aspect of the teaching is the exposition of the law of the four castes (Ch. XVIII, 41-47), and the preservation of it as a part of the universal order. Sri Krishna says, "The fourfold caste was created by me" (Ch. IV, 13), and "For the establishment of Dharma, I come into being in every age."<sup>12</sup>

Philosophical thought in India helped in this process of consolidation. While the Bhagavadgita recognises the teachings of the Sankhya and Yoga systems of philosophy, philosophers reduce the valid systems to six, accepting those which recognised the sanctity of the Vedas, and rejecting those which did not, like Buddhism and Jainism. We cannot describe the six systems here, as they belong to the domain of philosophical speculation and logic rather than belief. But they are Brahmanical systems, considering the Vedas as the ultimate source of truth, and reinforcing that coordination of belief and organisation which was called Dharma.

A parallel development of consolidation is seen in China, in the teachings of Confucius (Kung-Tse, Kung Fu-tse, c. 551-478 B.C.). This sage was greatly disturbed in spirit by the decay of the political, social and moral order in his time. He drew from all the sources of traditional knowledge the wisdom necessary to maintain order in personal and national life. His teachings are free from metaphysics; they are more of the nature of worldly wisdom. Their central concept is propriety, the underlying moral principle is self-control, the emotion sought to be cultivated is the emotion of piety, the ideal is to become a "princely" man.<sup>13</sup> The attitude of Confucius is almost scientific, prescribed with the fervour of religion. It is generally held that his teachings are a code of conduct, not a religious doctrine, but they embodied beliefs which imparted great strength and stability to Chinese life, because they derived from an ideal of unity, order and harmony, and from 'Tao,' the universal law.

The teachings of Lao-tse (probably fourth century B.C.) had an anarchist trend. He does not seem to have recognised

<sup>12</sup> *Shrimad Bhagvad-Gita*. Ch. IV, 8. Translated by Swami Swarupnand. 3rd Edition (Advaita Ashrama, Mayavati, Almorah, 1922).

<sup>13</sup> Max Weber, *The Religion of China*, pp. 155-163. (The Free Press, Glencoe, Illinois, 1951).

state and society, nor those obligations which an individual owes to them. It was the individual's own life which had to be brought into harmony with Tao, and for this peace, seclusion and complete detachment from the world was necessary. In principle, the teachings of Confucius and Lao-tse are inconsistent with each other. In practice, those who wished could derive full benefit from both, by leading a life of retirement and meditation when all social and family obligations had been fulfilled.

The fourth aspect of the spiritual revolution is the urge to understand the nature of the universe and to unravel the mystery of human existence and destiny through an investigation of the material world and man's relation to it. This urge was basically spiritual. The aim was to realise the ultimate truth, the universal order, and to evolve a pattern of living in complete harmony with it. In this respect also we see parallel developments in many cultures and many countries.

In India the Sankhya system of philosophy had as its fundamental doctrine the dualism of spirit and matter. This dualism appeared as a physical unity because of the qualities of matter, the perception of it through the senses, and the fusion of separate elements through the action of the mind and emotions. From a spiritual and ethical point of view it could be said that man's soul, which represented the opposite of matter, was embodied and imprisoned in his physical form. Its release, which should be the aim of all man's activity, could be attained if the nature of matter, and of the senses, could be understood, and the means of obtaining release discovered and adopted. Ionian philosophers from the seventh century onwards also speculated about the nature of the physical world, and sought for that harmony between man's life and the order of the universe which would make man's life perfect. The origin of scientific ideas is traced to them also, because they transformed what was perceived into concepts or ideas. The Egyptians and the Babylonians could make very accurate measurements. But they did not deduce from the triangular field the abstract form of the triangle, from the length and breadth of the accurately constructed wall the form of the rectangle. The first attempts to create concepts or abstractions did not produce a scientific attitude.

They only led to a gradual rejection of the old religious beliefs, and to the evolution of new systems of ethics that claimed to be based on observed facts or laws of nature. We know about the ideas and beliefs of the Ionian philosophers only from references of writers who lived much later. Pythagoras believed that "things are numbers," that the universe is made up of a plurality of units. His philosophy was at once mathematical and religious, and seems to have been deeply influenced by the religious thought of India and of Egypt. Other philosophers taught that matter passes from one form to others, Leucippus and Democritus put forward the theory that matter consisted of atoms, indivisible units which could be combined in infinitely different ways. Man's nature — his body, his emotions, his soul — was explained and the ideal way of life laid down on the basis of these ideas.

This must all have been very stimulating for the mind, but does not seem to have been wholesome for conduct. The life and death of Socrates (470–399 B.C.) bears eloquent testimony to the fact that man's moral nature suffered because of the wild deductions made from the first results of scientific speculation. After a long life of honourable service, in which he gave ample evidence of his concern for the moral as well as the material welfare of Athens, he was indicted before the people's court for corrupting the youth and making innovations in religion. We have an account of his trial and death in four dialogues of Plato, which deserve to be treated as sacred books. For nowhere has citizenship been given a more spiritual or nobler definition, and nowhere do we find the duties of man as a social being more movingly described.

The method of Socrates was to ask questions, to initiate discussions and, disclaiming all knowledge himself, show that those who claimed to know the truth were ignorant and misguided. He did not have disciples, but there were many who listened to him eagerly and shared in his spiritual quest. Among these was Plato, whose Dialogues, though they do not together build up a philosophic system, are masterpieces of literature and inspiring monuments of man's search for perfect justice, perfect truth and perfect beauty. Though it is clear that for Plato, as much as for the great religious leaders and prophets of this period, everything depended on the individual, Plato's

ideal man is not an isolated being, but a philosopher king, a person for whom spiritual values have necessarily to find expression in the social and political order, in the establishment of the ideal state. The spiritualisation of political life is perhaps the most valuable contribution of the Greeks.

Towards the close of the fourth century arose the schools of thought known as the Cynic, the Stoic and the Epicurean. They based themselves on metaphysical philosophy as well as current scientific ideas, and the element common to all of them was the desire to release man from the bondage of his own senses and of the material world. Of these schools, the Stoic enjoyed the widest influence. Its representative thinkers belonged to different nations, it did not recognise racial and political differences, or boundaries, it had a pronounced ascetic and puritanical tendency, and therefore had a special appeal for thoughtful people at a time when the Roman Empire had erased many political boundaries and when conquest and commerce had produced such wealth that luxurious living threatened to destroy all moral character. The belief that there is a common element in the laws and customs of all the peoples of the world led to a development of a law of nations in Rome and played a very important part in the evolution of the political ideas of modern Europe.

While the philosophers of Greece were looking at the world and at human life from one angle, the dramatists and the artists were looking at it from another. The dramatists revealed human nature as it is, apart from the individual and social order, from theories or rules of behaviour, and from religious dogma. They were the first to look at man himself, alone, to portray his reactions to circumstances and events, his inner conflicts, his nobility, his sins, his sorrows. The artists, above all the sculptors, studied the human form for its own sake, without any ulterior spiritual or ritualistic purpose. The oldest naked male figure, Apollo of Tenea, was made about 600 B.C., the oldest female nude, Aphrodite of Cnidos, in 375 B.C. These were not only works of art. They represent belief in the innate value of man, in the beauty of his form, in the mystery of his nature, and they began a tradition which deeply influenced European thought from the fifteenth century onwards and is even today an outstanding feature of western culture.



One of the most important consequences of the spiritual revolution which has been described was the bifurcation of belief and organisation as religion and the state. The religions of this period, and some of the philosophies which grew into schools and united people around a common belief, threw upon the individual the responsibility of distinguishing between right and wrong, and made him realise that his real happiness, his fulfilment, his salvation, lay in doing what was right. Not only the ruler but also the priest, not only power and the material good it could provide, but also temples, offerings, ritual were declared to be of no service or help to man in his moral striving. Kings and priests would be instruments of evil unless they also accepted the responsibilities imposed on them by the true religion. We do not, therefore, after this period see the assimilation of beliefs, the transformations of deities taking place as a matter of course to give religious and ritualistic sanction to political changes, to conquest or subjection of one people by another. Instead, we find individuals and religious communities by themselves or through their rulers and armies judging, supporting or opposing individuals or religious communities holding other beliefs. This introduces, on the one hand, religious persecution and, on the other, the fear that state and religion, the political rulers and the religious leaders, will not work in harmony. Darius the Great adopted Zoroastrianism as the religion of the state for Iran, Ashoka adopted Buddhism, and in China Shih Hwang-ti established emperor-worship. They all of them had religious as well as political motives. None of them was an innovator, for so far every state had had a state religion. The new element is the idea of advantage in having all the subjects of a state profess one religion and the fear that differences in belief would lead to political disloyalty. Every religion henceforth seeks to convert the state, and every state uses its power directly or indirectly to have its own religion professed by its subjects and no other.<sup>14</sup>

## IV

The Achaemenian, the Greek, the Mauryan, the Chinese, and the Roman Empires on the one hand, and the city-states of

<sup>14</sup> But see Ch. VI, p. 119.



Greece, in particular the city-state of Athens on the other, represent the culmination of these two types of political organisation. We have seen their development from the earliest times. It has also been pointed out that geographical and economic necessities were the reason why, to begin with, one type of state or the other came into being. Geography and economic interest still continue to be decisive influences. As civilisation spreads, and the area of economic interests and relations grows larger, the empires grow larger too, and the city-states either form confederations and leagues as they did in Greece, or the city-state itself becomes an empire, as happened with Rome.

We may regard all empires as the result of ambition, of the desire for the acquisition and the exercise of power. But they were also a reaction to the spirit of localism, represented in its worst form by landlords with sufficient strength to utilise all the local resources of agriculture, industry and trade for their own benefit and obstruct any form of political organisation that would reduce their power. Localism is a universal tendency; we see it everywhere and at all times, and most empires of the ancient world were a reaction to it, a struggle against it. The problem of the empires was maintenance of unity and solidarity through sentiments of loyalty and of efficient government through proper means of communication, the right kind of officers and effective administrative methods. If we examine the development of these empires closely enough we find that they followed the same pattern, passed through similar phases and broke down for almost identical reasons.

The problem of the city-state was the acquisition of sufficient resources and power to ensure its existence as a separate, independent political unit. No city-state solved this problem satisfactorily, and ultimately all were merged in the empires. The bitter conflicts among the Greek city-states, and their numerous failures to give durable and mutually beneficial forms to their leagues or confederations were sure indications that as a system of political organisation these city-states would not survive.

The Achaemenian emperor, Darius the Great (521-485 B.C.), divided his enormous empire into twenty provinces, called satrapies, and placed each of them in charge of three officers,

a viceroy for administration, a commander of the army and a chief of police. These officers were independent of each other, and directly under the emperor. To ensure their loyalty and efficiency, the emperor sent special officers for inspection, and the least irregularity or ground for suspicion was brought to his notice. For quick communication and movement of armies royal roads were built, of which one connecting the capital, Susa, with Sardis, across Asia Minor, is the most famous; but there were other roads also linking the capital with the eastern part of the empire and with Egypt. Along these roads were shady trees and inns and post-houses where royal messengers could change horses. The empire was bilingual, the local language always being used with one of the state languages, Iranian, Babylonian or Armaean. The administration was manned by people belonging to different races and different parts of the empire, and there were schools for training scribes at Susa, Babylon and Ecbatana. Darius tried to make religion a means of creating solidarity and combining the sentiments of loyalty to religion and to the divine person of the emperor into a cementing force. But all this was of no avail if the emperor himself did not possess the extraordinary intelligence, foresight, and administrative ability necessary to control and direct the machinery of government. The emperor was the weakest link in the chain and the first to break.

The administration of the Maurya Empire has been described rather vaguely and unsystematically by Megasthenes, a Greek ambassador at the Mauryan court. "The care of the king's palace is entrusted to women, who also are bought from their parents."<sup>15</sup> A great occasion at court, according to one source . . . was when the king washed his hair. Everyone then tried to outdo his fellows by the magnificence of his presents.<sup>16</sup> "The king may not sleep during the day time, and is obliged to change his couch from time to time, with a view to defeat plots against his life. . . . The king leaves his palace not only in time of war, but also for the purpose of judging causes. . . . Another purpose for which he leaves his palace is to offer sacrifices; a third is to go to the chase. . . ."

<sup>15</sup> J. W. McCrindle, *Ancient India as described by Megasthenes and Arrian*, p. 71 (Thacker & Co., Bombay, 1877).

<sup>16</sup> *Cambridge History of India*, p. 416.

In what Megasthenes says of the administration we get a glimpse of the elaborate machinery required for the government of the empire. We also realise that administrative policies in the Indian, Iranian and Egyptian empires could not have been very different.

"Of the great officers of state, some have charge of the market, others of the city, others of the soldiers. Some superintend the rivers, measure the land, as is done in Egypt, and inspect the sluices by which water is let out from the main canals into their branches, so that everyone may have an equal supply of it. The same persons are also in charge of the huntsmen, and are entrusted with the power of rewarding or punishing them, according to their deserts. They collect the taxes and superintend the occupations connected with the land, as those of the wood-cutters, the carpenters, the blacksmiths and the miners. They construct roads and at every ten stadia set up a pillar to show the by-roads and distances. Those having charge of the city are divided into six bodies of five (members) each. The members of the first look after the industrial arts. Those of the second attend to the entertainment of foreigners. To these they assign lodgings, and they keep watch over their modes of life by means of those persons whom they give to them as assistants. They escort them on the way when they leave the country, or in the event of their dying, forward their property to their relations. The third body consists of those who enquire when and how births and deaths occur, with the view not only of levying a tax, but also in order that births and deaths among both high and low may not escape the cognisance of government. The fourth class superintends trade and commerce. Its members have charge of weights and measures....No one is allowed to deal in more than one kind of commodity unless he pays a double tax. The fifth class supervise manufactured articles....The sixth and last class consists of those who collect the tenths of the prices of the articles sold. Fraud in the payment of the tax is punished with death.

"Such are the functions which these bodies separately discharge. In their collective capacity they have charge

both of these special departments, and also of matters affecting the general interest, as the keeping of the public buildings in proper repair, the regulation of prices, the care of markets, harbours and temples. Next to the city magistrates, there is a third governing body which directs military affairs. This also consists of six divisions, with five members to each. . . . There are royal stables for the horses and elephants, and also a royal magazine for the arms, because the soldier has to return his arms to the magazine and his horse and his elephant to the stables."<sup>17</sup>

To the existing machinery of government Ashoka added a department for the distribution of royal gifts and alms, and for encouragement in the observance of the Dhamma, the form of Buddhism which was the state religion. There were no problems of security, and, after the conquest of Kalinga in 261 B.C., no need for expansion. Ashoka could devote himself with single-mindedness to measures of beneficence and moral uplift. He seems to have taken Darius the Great as his model in publicising and propagating the Dhamma through royal edicts engraved on rocks and pillars, even to the extent of adopting the same literary style. He must have imported Persian artists and stone-masons, for here also we notice the Persian style and technique being followed. There can be no doubt that Ashoka's ideas were magnificent and his influence immense, both in India and outside, but his religious spirit and his leniency would not have increased the efficiency of the administration or the army.

The foundation of the first Chinese empire was laid by Shih Hwang-ti, a personality of quite exceptional strength, intelligence and ruthlessness. He belonged to the Ch'in dynasty, whose possessions lay along the Hoang-ho, with the capital at Hien-Yang. This was the area that would be most open to western influences through the trade route from the west, and this would be the only direction from which outside influences could penetrate, as the sea was still a barrier and not a means of communication. Shih Hwang-ti destroyed the power of the nobles, built a vast network of roads and canals, introduced a unified system of currency, weights and measures,

<sup>17</sup> *Ibid.*, pp. 86-89.

and of writing. He also built the Great Wall, 2,250 miles long, to guard the northern frontier against barbarian invasions. To overcome the resistance of those who used books and the prestige of learning to argue against him he had, in 213 B.C., more than 400 scholars put to death and all the books which had any bearing on politics collected and burnt. He has not been forgiven by the Chinese for this insult to learning and destruction of their ancient literature.

Shih Hwang-ti initiated emperor-worship. He surrounded himself with such mystery and was so swift and silent in his movements that the people never knew if the emperor was near, hearing all they said. "His capacity for reading despatches and reports (a hundred and twenty pounds weight of bamboo slips a day) gave him an uncanny omniscience."<sup>18</sup>

After the death of Shih Hwang-ti, the Han dynasty established itself. The Han emperors were more liberal, their punishments were less harsh. They were not, however, any more lenient towards the nobility and they built up their system of administration on a bureaucracy which was not hereditary and which restored the literary and scholarly traditions that Shih Hwang-ti had tried to destroy. The civil administration was separated from the military, and justice, education, religion, agriculture, public works were all looked after. Peace and development of internal communications promoted commerce, and with commerce urban life. But the results were not all satisfactory. The abolition of hereditary tenure of land emancipated the peasant, but because of taxation and the rise in prices the peasants were forced to abandon their lands and migrate to the cities in search of employment, thus creating an urban proletariat. The merchants sought to derive the fullest benefit from the favourable conditions and resisted attempts to tax them. On the other hand, the state, which needed more and more resources to feed its administration and its armies, was forced to introduce a system of monopolies, and to inflict savage punishments on those who sought to evade taxation. This led to crises and unrest. And while there were emperors like Wu-ti (140-87 B.C.), under whom the Chinese Empire reached its furthest limits of expansion, the

<sup>18</sup> W. N. Weech (ed.): *History of the World*, p. 350 (Odhams, London).

imperial palace was, during long intervals, a centre of intrigue and a source of demoralisation.

In the formation of empires and in all the changes that came about in the balance of power, the army played a decisive part. Apart from the organisation of the army, strategy and tactics — which means placing the army in the best position to overcome its enemy's resistance and to execute the plans in regard to the actual fighting — become extremely important. The first battles in history must have been fairly disorganised fights between enemies. The side which possessed the larger number and could form a strong wall of men normally won. Even when the fighters on both sides were organised as armies and better armed and provided, as in ancient Egypt and Sumeria, military superiority must have been based on numbers. The Egyptians were the first to set up the army as a separate institution, to divide it into infantry, archers, and chariots, and to make provision by law for the support of the soldiers. The first instance of a military organisation resembling that of modern times was introduced in Persia by Cyrus. He allotted a certain number of soldiers, called the king's troops, to each province as a standing army. The military commander of the province was responsible for the number and efficiency of the troops in his charge, while the civil governor or viceroy provided for their subsistence and pay. This organisation seems to have fully answered its original purposes of holding together a vast empire acquired by conquest and promptly repelling inroads and putting down insurrections. But when a great foreign war was contemplated, a levy of soldiers was made throughout the empire. This levy must have been a slow process and the men of all nations brought together must have been a source of weakness rather than strength.

Among the Greek city-states, each had its own citizen army, which could be called a nation in arms. Military service was compulsory in almost all states and young men began their career as soldiers with a continuous training of two or three years. The mainstay of the army was the heavily armed infantryman, called *hoplite*, and the fighting formation is known as the phalanx, which was a wall of shields formed by these infantrymen standing close together. This military system was not appropriate when armies were needed for



continuous service or distant expeditions, and the states of Greece were forced to recruit men from sources other than their own citizens. It was in this way that the mercenaries — adventurers, soldiers of fortune, broken men, political refugees, even runaway slaves — found their way into the army. In Rome, during the earlier period, the army was drawn entirely from the upper classes of the population, who served without pay and provided their own arms and armour. The wealthiest men furnished the cavalry, the remainder the infantry. An annual tax was levied at Rome to provide for the campaigns of the year. Discipline was severe. The offensive and defensive strength of the Roman army lay in the heavy infantry. The army was constituted in legions, which were divided into "maniples" of two hundred men each. These fought in an open order and everything was entrusted to the skill of subordinate officers and to the courage of the individual soldiers. To this formation, which ensured swiftness and freedom of movement, the Romans added the effectiveness of the short sword, used for stabbing rather than cutting. The greatest defect was the division of command and the lack of that corporate spirit which is found in a professional army. In the first half of the first century B.C., a standing army was developed; the soldier took a vow of loyalty to the general, and the morale of the army was based no longer on patriotism, but on professional pride.

The first book on the art of war was written in China by Sun Tzu, about 500 B.C. It shows an astonishing grasp of all the essentials of strategy and tactics, and seems to be based entirely on original thinking. We give below some extracts from the book. The experience of the ages as well as modern military science fully agree with Sun Tzu's judgement.

To fight and win in all your battles is not supreme excellence; supreme excellence consists in breaking the enemy's resistance without fighting.

In all fighting, the direct method may be for joining battle, but indirect methods will be needed in order to secure victory.

Typical examples are given of the indirect method:



Appear at points which the enemy must hasten to defend; march swiftly to places where you are not expected.

If we wish to fight, the enemy can be forced to an engagement even though he be sheltered behind a high rampart and a deep ditch. All we need to do is to attack some other place which he will be obliged to relieve.

But Sun Tzu continuously emphasises the fact that there can be no hard and fast rules in strategy and tactics, because "just as water retains no constant shape, so in warfare there are no constant conditions."<sup>10</sup> The emperor Shih Hwang-ti seems to have been an innovator, and his military successes were due to his making quite unconventional use of cavalry.

Thought was given to strategy and tactics for the first time in Greece because of the stress created by the Persian attack. Later, Philip of Macedon, the father of Alexander the Great, organised an army and evolved tactics which enabled Alexander, himself one of the greatest military geniuses the world has produced, to conquer Greece, Egypt and Persia. He armed the phalanx with a longer pike and made it the trunk or stable base of his army. It was, in fact, a kind of movable fortress. On to this trunk or base Philip added two arms, the left to protect and ward off blows, the right to attack, to deliver blows. Both these arms consisted of light and heavy cavalry and the right arm was stronger both in quality and quantity.

In India, the organisation of the army and the formation of the order of battle seems to have been based on tradition and the right of each constituent unit of the army to its particular position and function on the battlefield. Strategy and tactics became a part of the Dharma.

The empire of Alexander the Great, whose establishment was inspired by the ideal of disseminating Greek culture, did not make any particular contribution to administrative ideas or methods, because it took over the administrative systems of Iran and Egypt. The Roman Empire, not more humane in its policy or idealistic in its aims than the empires of the east, nor any more successful in resolving class conflicts, did however establish a judicial system which created great confidence, and left to the world the ideal of government according to law.

<sup>10</sup> Phillips, *Roots of Strategy*, p. 26 ff.

The Roman Empire also provides an excellent example, the first in history, of an administration adapting itself to circumstances by legislation and giving to all changes introduced the authority of a known and published law.

Political action expressing itself through change of public laws is also a characteristic of Athenian democracy. But the form of government finally established, in which the administration was entrusted to a committee of five hundred citizens elected by lot, was neither an ideal method nor did it work well. The condemnation of Socrates was the condemnation of Athenian democracy also, and what the world has really inherited from Athens is not democracy as a working system but political ideals, political thought, and an attitude of mind which would enable any political community to change its administrative system without being mentally hampered by tradition and custom. From this point of view, Plato's *Republic*, though it consists only of philosophical speculation about the nature and organisation of a state that is ideal, because based on justice, ranks higher than administrative measures which may have brought peace and prosperity for some time, but did not stimulate men's minds or draw their attention to the eternal problems of social and political life.

The large areas and the complex activities of the empires and city-states of this period reveal the widespread diffusion of civilisation. The ancient trade routes become busier, goods are transported over enormous distances, such as silk from China and spices from South India to Rome. The Greeks, because of economic necessity or growth of population or desire for cultural expansion, established colonies along the coast of North Africa and the Western Mediterranean. After Alexander's conquest of Persia, Greek colonies were established as far eastwards as Bactria. The Greek colonists carried with them their ideas of citizenship, their democratically organised civic life, their literature and art, their skills. Their colonies served as outposts of their civilisation, as depots of trade and as a means of bringing barbarous or less civilised people within the sphere of civilised life.

Relations between states, partly because of commercial needs and partly because of the problems of security, developed new forms. The Egyptian king, Amasis (568-525 B.C.), brought

together all the Greeks in his kingdom in the city of Naucratis, near the old port of Pharos. They were given the right to govern themselves according to their national tradition. The only condition imposed was that they should pay taxes to the Pharaoh. Naucratis rapidly became a meeting place for the two great Mediterranean civilisations and the means of integrating Egyptian and Greek economy. Towards the end of his reign, Amasis almost established a maritime overlordship by allying himself with the king of Samos, who possessed one of the strongest fleets of the time. He also formed a close alliance with the king of Sardis. The rise of the Persian Empire led to the formation of leagues of city-states. These, however, rested on insecure foundations and were effective only for short periods. After the repulse of the Persians in 490 and 480 B.C., when Athens and Sparta became rivals, there were alliances between Athens and the Persian Empire, and when Alexander invaded Asia Minor, Sparta joined the Persians in the attempt to resist him. Between states that were not neighbours, but as far from each other as China and Rome, there were attempts to establish diplomatic relationships, and a Roman embassy was sent to China in A.D. 165. A South Indian king sent ambassadors to Rome.

A historic innovation in international relations, and one to be deeply cherished, were the missions sent by Ashoka to other countries to propagate the ethics of non-violence and sympathy for all creatures, and to seek international cooperation for the realisation of the ideal of moral betterment.

Apart from the inter-continental trade routes there were lines of communication between different commercial centres, where shipping was very active, with an almost regular service on fixed lines. Sails as well as oars were used; and a ship could carry as much as 250 tons of goods. A large number of roads were also built. We have mentioned the Persian roads. Ashoka also built roads, planted trees along them and provided amenities for travellers. These roads existed already as trade routes, though, as we learn from the Jatakas, travellers were likely to lose their way if they went without guides. Ashoka's work must, therefore, have greatly stimulated trade and traffic. The most important among the trade routes were those connecting Pataliputra with Purushawar (Peshawar) *via* Banaras

and Mathura; Pataliputra with Broach *via* Kosambi (near Allahabad), Bhilsa and Ujjain; Mathura with Ujjain, and these northern routes with the Deccan and South India across the Narbada, *via* Nasik and Paithan.

The Romans realised the military and commercial value of roads and it is estimated that the total length of roads in the Roman Empire came to about 60,000 miles. In China the roads were mainly tracks and each vehicle had to move on the track. If the axle of a vehicle was broader or narrower it could not use the track. When Shih Hwang-ti built his network of roads he directed that the axles of all vehicles should be of a standard size.

The volume of commercial traffic increased enormously. Goods were produced mainly for local consumption, but those produced for export were in such quantities that overseas trade, which in the days of the Phoenicians had been a kind of peddling, became real business. These goods included grain, wine, oil, dry fruits, salt fish, useful or precious metals, wood, wool, hides, amber, ivory, woven materials, carpets, painted vases, weapons of all kinds, metal utensils, jewels, works of art and products of the goldsmith's and metal chaser's craft.<sup>20</sup> In a book written towards the end of this period, the *Periplus of the Erythrean Sea*, details are given of trade routes and ports and articles of merchandise in the region of the Red Sea, the Persian Gulf, the west coast of India and the east coast of Africa. The goods chiefly traded in here were slaves, horses, furs, ivory, cotton, horns, coral, coloured lac, pearls, vegetable products, timber, gold, silver, tin, lead, brass, iron and iron utensils, copper, precious and semi-precious stones, glass of a coarse kind, silk-thread, textiles and clothing.

Many of the Greek cities, and specially Athens, could not or did not produce enough foodgrains to feed their population, and therefore had to depend on imports, in return for which they exported wine and oil and manufactured goods. When Rome grew into a large city, it had also to import foodgrains, and from 27 B.C. onwards depended for its supplies on Egypt. Most probably this arrangement served the interests of those who wished to make profits, and we find later that there were

<sup>20</sup> Jules Toutain, *The Economic Life of the Ancient World*, p. 65 (London, 1951).

famines in the Greek and Asian provinces of the Roman Empire. To prevent economic crises many city-states, even city-states like Athens, which believed in the fullest freedom, made rules for the regulation of trade and appointed officers to enforce these rules. Certain kinds of import duties were also levied in the interest of the state treasury.

Commercial life on the scale on which we find it in this period would not have been possible without a proper medium of exchange. We have mentioned the introduction of coinage in India and in some Mediterranean cities. A coin has been defined as an ingot weighed, stamped and guaranteed by the state. Darius the Great was the first to strike coins on a very large scale. His gold coin, known as the Daric, weighed 8.41 grams, and bore the royal effigy. There was, besides, the silver drachma. Coinage was introduced in Greece around 500 B.C. and in Rome in 338 B.C. The introduction of coinage created a social revolution and introduced capitalism in an elementary form. "Money was no longer merely an instrument of direct exchange between sellers and buyers; it had become a factor of economic production. It supplied the manufacturers with the means to make more goods and to make them more quickly, and the merchant with the means to offer the consumer a larger quantity of commodities, sometimes coming from far distant countries." The introduction of coinage led to the accumulation of what is called liquid capital. With this type of capital came the money-changers and the bankers, whose activities by the fourth century had taken the form of banking operations. "They helped their clients to draw up contracts and took these into their keeping. They undertook to make payments either with sums handed over to them or with money advanced by themselves. They opened current accounts for their clients, issued letters of credit and lent money to individuals and more rarely to cities."<sup>21</sup> The value of currency became an important factor of economic life, and in 65 A.D. we find the phenomenon of inflation in Rome.

Agriculture during this period was improved in Greece and Rome by letting land lie fallow to prevent exhaustion and through rotation of crops. The tendency of the upper classes there was to invest their capital in large farms. The state and

<sup>21</sup> Toutain, *op. cit.*, p. 75.

temples also owned large landed properties, but most of the farms were of middle or small size. Tools of agriculture were not appreciably improved.

Among industries, mining and quarrying were the only ones which were practised on a large scale. The Roman love of luxurious materials and splendid buildings kept men in every part of the empire labouring at the extraction of the materials possessing the colours and qualities which were in demand. Mining of precious metals was necessary to provide for the needs of trade and commerce. The production of goods for commerce in the towns was usually carried on as a domestic industry. Very often the same premises served for workshops and sale rooms, the owner, assisted by one or two slaves or a few free workers, himself making the goods to be sold. The small-scale producers organised themselves in guilds. In the days of the Roman Empire there were also industrial organisations, some private and some public, which were large-scale producers. Pottery, lamps, glassware and perhaps carpets and cloth were produced in this way.

The dark aspect of what appears to be legislation for the establishment of a better political and social order and a sounder economy were the perpetual class conflicts. In the empires we see over and over again a cycle of change from benevolent and enlightened monarchy to a powerful and selfish domination of nobility and priesthood, leading finally to an absolute monarchy which cannot fulfil all its numerous responsibilities. There are revolutions, new laws are made, the oppressed classes obtain relief, the merchants and tradesmen get the opportunity to carry on their activities with more freedom and profit. But the scale of life is so vast, the forces at work so strong or so elusive that permanent traditions, conventions, patterns of procedure cannot be built up. The city-states of Greece and Rome were faced with continuous class conflicts, and there were continuous attempts to resolve them through legislation. This legislation was effective for a limited time and in limited ways, but the laws were known, recorded and acknowledged as binding unless annulled or amended by other laws. They, therefore, made legislation a recognised method of social and economic reform, and provided a type of opportunity for the expression of ideas and the



making of experiments which introduced the phenomenon of a "public" and of "public opinion". This was not possible in the empires, where everything depended on the personality and the capability of the ruler.

Unrest and conflict in Athens towards the middle of the seventh century B.C. led to the demand for the publication of the laws, and in 621 B.C. Draco published them. The introduction of coinage caused great distress among the poorer citizens and, in 594 B.C., Solon was given full authority to make laws to remedy the distress and reform the system of government. The laws continued to be amended and improved, and, in 308 B.C., Cleisthenes gave to the Athenian constitution the shape that has made it the symbol of democracy. In Rome, the agitation of the people led to the publication of the laws known as the Twelve Tables. These formed the basis of further legislation, which was made necessary from time to time because the nobility always succeeded in making the administrative system work in their own interest and for their own economic and political benefit. In Athens, it was assumed that every citizen could perform the function of a judge, and the judicial body was a committee of 50 citizens giving judgement by vote. This prevented the development of a judicial system, of judgements and interpretations of the law that would serve as precedents. In Rome, the function of judges was assigned to particular officers and a judicial system, working on the basis of published laws, interpretations and previous judgements serving as precedents was slowly built up. It was this judicial system which made Roman law the symbol of organised political and social life.

Legislation, law-courts and public opinion at its best, however, continued to recognise and maintain slavery. There was slavery in Egypt, and slave labour was used on the temple farms. There was slavery in all Asian countries, and slaves were bought and sold, ill-treated and well-treated. But nowhere did law and public opinion make such a strict division of the population into slave and free as in Greece and Rome, nowhere was it held that it was in the nature of things that a slave should be a slave, and that his labour should provide the free citizen the leisure to participate in civic life, both as a duty and as a natural right. The revolts of the helots in Sparta,



and of the slaves in Rome, specially the historic revolt of Spartacus in 73-71 B.C., were symptoms of the awful exploitation to which these miserable human beings were subjected.

The problem of class conflicts was not solved anywhere except, perhaps, in India by the general acceptance of the caste system. Legislation and economic regulation failed to provide social justice or employment, because the landowning and capitalist classes could not be made to subordinate their own interests to the common welfare. In Rome, by the end of the first century B.C., 2,50,000 persons were being fed and clothed by the state. The rich were soon to abandon themselves to reckless luxury and rich and poor alike to find bloodthirsty satisfaction in seeing gladiators fight and kill each other and wild beasts devour human victims.

This is, of course, only one side of the picture. We have called this period the age of spiritual revolution and have referred briefly to the religions and the religious and philosophical thought which is the outstanding characteristic of this period. This was also the age when education was more widespread and organised efforts were made to collect, systematise, preserve and disseminate knowledge. Plato established his Academy in 387 B.C., Aristotle his Peripatetic Academy in 334 B.C., after Plato's death. About the end of the fourth century B.C., Alexandria became the centre of Greek science, and with its Museion and centre for study and research are associated such great names as Archimedes (285-212 B.C.), Euclid (c. 300 B.C.), Eratosthenes (275-195 B.C.) and Ptolemy (c. A.D. 100-178). It later became the centre of the Neoplatonist school of religion and philosophy. Taxila, now in Pakistan, was a great centre of learning, and in China, in 124 B.C., the great academy of Hien-Yang was established. The Museion library of Alexandria began the institution of public libraries. The first public library was set up in Rome in A.D. 10, and thereafter public libraries were opened in many towns.

The importance which knowledge had acquired, the opportunities for education and the urge to know and to understand produced a number of authors of great eminence. The aptitude of some of these was for creative thinking, of others for systematisation. Plato and Aristotle may be taken as the symbols of these two types. Both dealt with almost every

field of knowledge. Plato's mind was speculative and idealistic, Aristotle's rational and normative. Aristotle was philosopher, psychologist, logician, moralist, political thinker, biologist, literary critic. He followed a scientific procedure in each of the subjects which he treated. He had a profound respect for facts, with a passion for understanding and classifying them, and the general principles he lays down are based on facts examined with great care. It was for these reasons that he dominated for centuries the mind of the Muslim and the Christian world.

With religion, philosophy and science, history also becomes important. The writing of history begins with Herodotus (495-424 B.C.). After him, Ephoros of Cyrene (400-355 B.C.) wrote the first book of world history. In the third century B.C., Manetho of Egypt and Berossos of Babylon wrote histories of their countries, each in three volumes.

The academies of Plato and Aristotle stimulated thought and writing to an incredible extent. Heracleides (born 350 B.C.), the pupil of Plato, is reputed to have written about sixty books. Another member of the Academy, Speusippos, compiled an encyclopaedia. A history of mathematics was written in 350 B.C. A compendium of medical science was prepared in Alexandria in 275 B.C. and Callimachus, also of Alexandria, prepared the first catalogue of books in the third century B.C. Egyptian laws were codified by the order of Darius the Great, and represent an achievement almost equal to that of Hammurabi. The study and codification of law was taken up in Rome from the second century A.D.

One of the great advances of this period was the publication of books. In Alexandria and in Rome, the text of the books was dictated to slaves trained as calligraphers, the leaves were gummed together in long rolls. This was a process which could be fairly widely adopted and we find at this time publishers and booksellers setting up business.

We have referred to the study and writing of books in China. Of special interest in the scholarship of this period is the work of Ssu-Ma Chien, the first Chinese historian, who lived in the first century B.C. His attitude was scientific. He not only studied the sources, but also included long extracts from them in his book.

In India, it is during this period that we find direct references to trade and commerce and industry. In the Arthashastra, attributed to Kautilya, the date of which is not certain, but which was probably compiled in the second or third century A.D., we have a compendium of amazingly detailed information on matters relating to political, economic and social life. The attitude to problems is definitely secular, sometimes even irreligious and immoral. But the Arthashastra is an exception. The literature of this period, both Buddhist and Brahmanical, is religious, philosophical or legal.

## V

One of the greatest scientists ever born, and beyond doubt the greatest genius of antiquity in the field of mechanics and applied science, Archimedes (285-212 B.C.) indulged fully his passion for pure science, but refused to leave behind him any treatise on mechanics or on any art whatsoever that touched on the practical. He looked upon the work of an engineer and everything that ministers to the need of life as ignoble and vulgar.<sup>22</sup> This attitude explains why, during this period, theoretical mechanics was not more widely applied. But still this age is memorable as the first in which science came to the help of skill and the possibilities of technological progress to an infinite degree were created.

However, before we describe the mechanical inventions, we must mention another development on which the future of knowledge as well as skill was to depend. This was the development of the alphabet by the Greeks, which provided a strong foundation for language, for the preservation and extension and, what is most important, for the dissemination of knowledge. Unfortunately, the Greeks used the letters of the alphabet also to indicate numerals, and this proved a handicap till the numerals used in India were introduced in the western world through the Arabs.

In the western world, the scientific discoveries and inventions of this age that could directly influence skills are most of them

<sup>22</sup> Farrington, *Science in Antiquity*, p. 192 (H.U. Series). Bernal, *op. cit.*, p. 159.

due to Archimedes. There is, first, the principle named after him, that when a body floats in a liquid, like a ship, for instance its weight is equal to the weight of the liquid displaced, and when it is immersed, its weight is displaced by that amount. Archimedes also calculated the relative density of bodies to show Hiero, the king of Syracuse, that the gold in his crown was adulterated. He discovered the theoretical principles of the lever, which had not been defined, although levers were being used from very ancient times. He discovered the method of measuring the circle, of finding the ratio of the circumference to the diameter, and also the ratio of the volume of a cylinder to that of the sphere. He laid the foundations of the science of statics and of hydrostatics. Among his inventions are compound pulleys, the hydraulic screws, the burning mirror, and the engines of war which enabled the Syracusans to defy their Roman besiegers for three years. We know from the chance discovery of his work on methods that he used mechanical models to arrive at mathematical results.

Other inventions of this period are the water-level, the square, the key, the turning-lathe, air-regulators for pumps, air-gun, water organ, clepsydra with cog-wheels, forcing pump, dredger-like chains of buckets driven by water-wheel or tetrads or cranks, water-driven mills for grinding corn, and the true system for the metal-casting and the founding process.

The contributions of Chinese inventiveness to the development of civilisation have been overlooked and not generally appreciated because of the time-lag between the invention or discovery by the Chinese and its utilisation by the rest of the world. During the period we are concerned with here, the Chinese had discovered magnetic action on the needle; they had invented the square-pallet chain pump, the edge-runner mill and the trip-hammer mill with water-power drive, the rotary winnowing machine with crank-handle, blowing engines for furnaces and forges, piston-bellows for continuous blast, draw-loom for figured weaves, silk-working machinery, the wheel-barrow, the cross-bow, methods of deep drilling, iron casting, and the manufacture of paper (by T'sai-Lun in 105 B.C.) and porcelain.

Outstanding among the achievements of skill and engineering during this period are many public works. The Assyrians provided public water-clocks around 640 B.C. The "Hanging Gardens" of Babylon, counted among the wonders of the world, and a 900 metre tunnel leading from the palace to the Temple of the Sun were constructed in 575 B.C. The first pipe-line for providing water was laid by Eupalinos at Samos in the sixth century, and similar pipe-lines were laid at Athens in 546 B.C. and at Rome in 305 B.C. The first attempt to connect the Red Sea with the Mediterranean by means of a canal was made under King Necho of Egypt, and the canal was completed in 517 B.C. A canal, joining the Nile with the Red Sea, originally made in the seventh century, was improved and provided with sluices in 260 B.C. A high-pressure water pipe-line with metal pipes was laid at Pergamon in the second century B.C., a street tunnel, still usable, was made to connect Naples with Puzzuoli (36 B.C.), and a tunnel about  $4\frac{1}{2}$  miles long was constructed in A.D. 44-45 to regulate the water-level of the Fucino lake in Italy. The Romans were accomplished in the art of building aqueducts, many of which survive to this day. Architecture also made considerable advances. Large tenement houses of two and three storeys were made when Rome was rebuilt in A.D. 65.

The explorations of this age, and the discoveries connected with them, are also of importance. The first historically established circumnavigation of Africa by Phoenician sailors, which took three years, was completed in 595 B.C. Pytheas of Massilia explored northern Europe and determined the variation in the position of the North Pole. A Greek sailor, Hippalos, discovered in the first century A.D. the movement of winds known as the monsoon, and this knowledge facilitated and considerably increased shipping between the countries of the Mediterranean, Egypt and India. The first Chinese ships reached India about the same time. Eratosthenes (275-195 B.C.), the greatest of the ancient geographers, made the first map, and calculated, almost correctly, the circumference of the earth. He also established a system of chronology.

The foundations of a proper astronomical science were laid in Babylon in the sixth century, with an exact prediction of

stellar movements, and in 238 B.C. a calendar of 365 $\frac{1}{4}$  days was introduced in Egypt. But public opinion in all countries was so strongly opposed to the view that the earth revolved round the sun that calculations and observations by means of which certain astronomers proved this were indignantly ignored, and Ptolemy, the last of the great astronomers of this age, burdened posterity with assumptions that were basically false but were supported by the prestige of science.

Medicine, as seen in the school of Hippocrates, was more scientific in spirit than it was later. Hippocrates himself seems to be a somewhat legendary figure, the corpus of medical science associated with him consists of treatises written between 450 and 350 B.C. Medicine is treated as an art of curing patients, and is not concerned with spiritual or moral causes of disease. Experiments were recorded, symptoms were minutely observed and carefully interpreted, and many diseases were accurately described and appropriate treatment suggested. There is reason to believe that centres for medical treatment were also established.

But the medico-spiritual legacy of Babylonia and Egypt, as well as the general tendency to look for supernatural causes gradually brought medical science under its influence. Galen (c. A.D. 129-200), whose reputation for many centuries stood as high as that of Aristotle and Ptolemy, systematised the anatomical and medical knowledge of the Greeks, dissected animals and human bodies and discovered many new facts in anatomy and physiology, of which the most outstanding is the function of the kidneys. He examined the action of the heart and made an investigation of the spinal cord, which is considered one of the most notable experiments of ancient times. But he mixed up his science with metaphysics. His theistic attitude appealed to both Christians and Muslims and this helped to establish his metaphysics all the more firmly. His knowledge was encyclopaedic and he is reputed to have written about 150 books.

The development of skills in India followed more or less the same lines as elsewhere. Greek observers do not seem to have been impressed by the technical accomplishments of the Indians, and tax them with being backward in the scientific



development of the resources of their country. "The Indians, inexperienced in the arts of mining and smelting, do not even know their own resources, but set about the business in too primitive a way. They do not preserve accurate knowledge in any line, except that of medicine; in the case of some arts, it is even accounted vicious to carry their study far, in the art of war, for instance." But the cleverness of Indian craftsmen has also been praised,<sup>23</sup> and if the Iron Pillar was made in 86 B.C., we must consider Greek opinions as based on insufficient information. The trade between India and the Mediterranean countries was, however, in natural products and not in manufactured goods, except textiles.

Megasthenes noted that physicians were held in honour in India because "they are engaged in the study of man. They effect cures rather by regulating diet than by the use of medicines. The remedies most esteemed are ointments and plasters."<sup>24</sup> Medicine was called "Ayurveda," the knowledge of longevity, and was supposed to consist of eight parts, major surgery, minor surgery, cure of diseases, demonology, children's health, toxicology, elixirs and aphrodisiacs. Buddhism stimulated the study of medical science and also established a lofty code of conduct. In the *Vinayapitaka*, one of the oldest of the Buddhist religious books, there is the story of Jivaka, a renowned physician who studied for seven years at Taxila and then started practice in one of the big towns. He is supposed to have performed remarkable cures and operated on the head of a rich merchant, extracting two worms. He was also considered an authority on the diseases of children.<sup>25</sup> There are frequent references to medical science in Buddhist literature, to medicaments, baths, blood-letting and surgical instruments. Similes based on surgical practice show that it could not have been uncommon. A great name in the history of Indian medical science is Charaka who, according to a Chinese version, was the court physician of Kanishka. But the *Charaksamhita*, a work on medical science, belongs to a later period.<sup>26</sup>

<sup>23</sup> *Cambridge History of India*, p. 418.

<sup>24</sup> McCrindle, *op. cit.*, p. 102.

<sup>25</sup> Winternitz, *Geschichte der Indischen Literatur*, Vol. II, pp. 30-31.

<sup>26</sup> *Ibid.*, Vol. III, pp. 542-545.



In Greece and in the world that came directly under Greek influence this period closes with the decay of science. This decay is wrongly supposed to be due to the spread of Christianity and other religions. Greek science was not killed, it died. It was looked upon as the occupation of a privileged class, and did not take root in the general education or yield benefits to men at large.<sup>27</sup>

<sup>27</sup> Farrington, *Science in Antiquity*, p. 227 ff.

## CHAPTER VI

### THE RELIGIOUS WORLD-STATE (A.D. 200-900) •

#### I

THE period which we have called the age of spiritual revolution began in a large part of the civilised world after the settlement of the so-called Aryan tribes in Greece, Iran and northern India. In different ways and in different degrees these newcomers took over the ideas, the systems of organisation and the skills of civilisation and gave them a new form. The period of the spiritual revolution ends in the west with the destruction of the Roman Empire by barbarians, in the upsurge of new elements of the old peoples in Iran and India, and in the assimilation of new racial elements in north and south China.

In the west the barbarians had acquired the rudiments of civilised life in their struggles against the Roman Empire. In west Asia the Arabs, who now appear as the bearers of the message of Islam, had had contacts with the civilised peoples of Egypt, Syria and Mesopotamia for a very long time. In India, civilisation had been spreading along the trade routes and the Guptas represent most probably a new stock of vigorous people able to carry civilisation forward.<sup>1</sup>

We now come to the age of the religious world-state. Like the spiritual revolution, the idea of the religious world-state as seen in the Muslim Khilafat and the Holy Roman Empire in Europe is the distinctive feature of this period and is the result of significant developments in belief and organisation. It has had far-reaching results and created problems which have not been solved till today. It led to bitter conflicts between religious groups and communities and between these and the state. It has also led to such ideals as one world of many peoples sharing certain fundamental beliefs.

We shall first briefly review the main events of this period. In China, the Han dynasty was overthrown by peasant insurrections in A.D. 220, and there was anarchy in the country

<sup>1</sup> This seems to be suggested also by Radha Kumud Mukherji, in his *The Gupta Empire*, p. 14 (Hind Kitabs, Bombay, 1947).

till A.D. 280, when the country was again unified for about 150 years by the Chin dynasty. But a really stable government was established only in A.D. 618, by the T'ang dynasty (A.D. 618–906), whose achievement in political and economic expansion, in art and culture is comparable to that of the Han. The reign of the Emperor T'ai Tsung (A.D. 627–649) marks the height of its power and glory.

In India, decaying Kushan power was wiped out by the Guptas, whose dynasty was founded in 320 by Chandra Gupta I. He was succeeded by Samudra Gupta (c. 320–380), a warrior, statesman and a man of culture, who united a large part of India under his rule. His successor, Chandra Gupta Vikramaditya (c. 380–413), conquered Gujarat and West India, so that all the important trade routes came under the control of the Gupta government. After the middle of the fifth century the Huns began their invasions and shattered the Gupta Empire, bringing ruin and devastation upon all the centres of civilisation. Under Harsha (606–646) there was a splendid recovery. After him, centralised administration in the north broke down, and the Deccan and South India, under the Chalukyas and the Pallavas, became the centres of cultural and political activity. But the kingdoms of this area wasted their strength in purposeless warfare.

In Persia, the Sassanians succeeded the Parthians in 224, and their empire lasted till 641. Their state expanded towards Mesopotamia, Arabia and Asia Minor, and attained such power and prestige as to become a byword for splendour. Khusrau Anushirvan (531–579) was recognised for centuries in the Muslim world as the model of the wise and just ruler.

The Sassanians were in perpetual conflict with the Byzantine Empire, the eastern part of the Roman Empire which survived the western by about 1,000 years. The Roman emperor, Constantine the Great, made Byzantium the capital of the empire in place of Rome in 330. The change was made because of the pressure of barbarian invasions. These invasions continued, and in 476 the western Roman Empire came to an end. The Byzantine Empire had to struggle for survival from 565 to 716. Then it developed its economic resources and its political and military systems and enjoyed wealth and prosperity for over three centuries. After this there was again a decline.

The successors to the western Roman Empire in Europe were small and large racial groups who fought continuously to establish themselves. Towards the end of the eighth century, the kings of the Franks succeeded in obtaining dominion over the whole of western Europe except the British Isles and Spain, and Charlemagne (Charles the Great) was crowned Roman emperor at Rome in 800.

The latest religious as well as political development of this period is the propagation of Islam and the rapid expansion of the Muslims. The Prophet Mohammad (570-632) left Mecca in 622 because of continuous persecution and established himself at Medina. Within 10 years Mecca had been reduced and a very large part of Arabia converted. Under the Caliph Omar (634-644), Palestine, Syria, Iran and Egypt were conquered, and the expansion continued under the Omayyads (660-750), till the Muslim state extended from the valley of the Indus to the shores of the Atlantic. Spain was conquered and the Muslims advanced into France. With the conquest of Crete (826), Sicily (827), Corsica (850) and Malta (870) their hold over the western Mediterranean was complete. The Omayyads were overthrown by the Abbasids in 750, and with them began an era of prosperity and intellectual achievement. But by the close of this period political disintegration had also begun.

## II

With the spiritual revolution we see the emergence of a more advanced type of religious community. It can be divided into three units, (1) the body of doctrine and belief, (2) the members of the community who study and teach the doctrine and the particular way of life enjoined by the doctrine, and (3) the social and organisational form given to the community through religious law. The Buddhist, the Christian and the Muslim communities are representative in this respect and each of them has a history which has been deeply influenced by the development and by the interaction of the three units into which it was divided.

The Buddha did not recognise caste, or the ritual and rites which formed such an important part of religion in his time. But he did not teach how society should be organised and what

observances should be introduced. This means that he did not attempt to create a new social order, a new religious society with its own laws, customs, ceremonies. On the other hand, compromises in matters of doctrine were made through allowing converts to continue believing things they believed in before, and no change was made in their way of life. This led to a wide propagation of Buddhism, but it also brought in an element of weakness.

But if Buddhism did not aim directly at creating a new social order, the belief that not only all mankind but all creation was one, that all men were equal and distinction could be achieved only through good works, gave a tremendous stimulus to cultural and commercial activity. The idea of the unity of mankind removed all those barriers which make men strangers to one another. It created the desire to see the wide world and to be of service, wherever and to whomsoever possible. The inculcation of generosity led to the donation of lands and properties and the dedication of works of art to the community. In China, where Buddhist missionaries went both overland and by sea during the first century B.C., the religion found no approval among the educated and wealthy classes. When the missionaries turned to the middle and lower classes, their teachings gained widespread acceptance. The Buddhist doctrine of the after-life, according to which all oppressors and exploiters would suffer for their misdeeds in the next birth, and those who suffered in this life would be rewarded in the next, made a strong appeal to the harassed peasantry and the other classes which suffered from the wrongdoings of the powerful. The Buddhist missionaries did not interfere with the worship of the indigenous deities, and did not look with disfavour on the ordinary economic activities. They did not ask for too much dedication to moral ideals, because Nirvana did not need to be attained at once. It could be the result of lives of virtue in successive rebirths. The merchants made use of Buddhist monasteries as banks and warehouses, as places where moneys could be exchanged. They were, therefore, well-inclined towards Buddhism and gave money and lands for temples. The temples were able to settle peasants on these lands. It was because of this type of popularity that Buddhism became the state religion of China in the fourth century. We

do not know what effect the spread of Buddhism had in south and south-east Asia but, judging from the architectural and artistic remains, the influence must have been considerable.

Like the doctrines of Buddhism, the doctrines of Christianity also took definite form only gradually. Christ does not seem to have prescribed any daily routine or any distinctive dress for his disciples. They had just to preach the word of God. This preaching revolved round two basic beliefs, that Christ through his sufferings had redeemed humanity and that the Kingdom of Heaven was at hand. If we could picture to ourselves the misery and the suffering of the lower classes and the slaves who had been crushed and exploited to the limit by the wealthier classes under the Roman Empire, we would easily understand what consolation and relief this teaching would have brought to them. Christianity was at first the religion of the poor and the downtrodden. As its influence rose to higher levels of society, it began to encounter criticism and opposition of different kinds. The Romans disliked it because of what seemed to them its unpolitical, and therefore unsocial spirit. The philosophically-minded failed to be moved by it because of its simplicity. The Neoplatonists disliked it because it was the religion of the masses. But Stoicism in a way prepared the ground for the acceptance of Christianity just among those people whose continued disapproval was likely to injure its cause. We do not know how far the stories about the horrible persecutions of the Christians are true, but there can be no doubt that they were persecuted. This strengthened their faith on the one hand and, on the other, put their oppressors in the wrong. Ultimately, because their numbers grew till it could be said that they were a unifying factor among the subjects of the emperor, Constantine the Great, in 327, recognised Christianity as one of the religions of the empire. Christianity was then able to exercise influence on the political and social organisation of society, and to undertake the task of preserving civilisation.

With the decline of the Empire the Christian faith seemed to be the only institution that was likely to survive, and the only force working to save both the moral quality and the material creations of civilisation. Two events serve as typical illustrations. In 390, St. Ambrosius forced the emperor

Theodosius to perform public penance for having massacred 7,000 rebels, and in 452, Pope Leo I persuaded Attila the Hun to spare the city of Rome.

It would not be easy to understand how Christianity could appeal to the new peoples in Europe if we did not realise that, by the time the conversions began, Christianity was not a persecuted or neglected religion but had taken the form of a system which represented both the higher social order and a new morality. Princes and tribal chiefs who became converts must have felt that they were being included in what they knew to be the civilised world as well as earning a reward in Heaven. Frequently, when the prince or chief was converted, all his subjects adopted the new religion.

Jerusalem was the first centre of expansion of the Christian faith. When St. Paul started on his missionary journeys, Antioch was the capital of the Middle East, Alexandria the great port of eastern trade and Rome the capital of the western world. Those were the centres towards which missionary activity was drawn. In their organisation the Christians followed the model set by the Roman administration. The bishop, who was responsible for the religious guidance of his flock, had his seat in the district; the metropolitan, higher in rank than the bishop, lived in the provincial capital; and the patriarch at the state capital from which missionary activity was directed. But there was no official hierarchy. The Church as a whole was the Body of Christ and as large as the world of the Christians. The bishops were the most important people. They were religious as well as intellectual leaders and it was not felt necessary to have a supreme head.

Beliefs in regard to the relationship between the Christian community and the State changed with time. St. Paul recognised that the powers that be are ordained by God, and prayers for the emperors and those in authority were customary among the early Christian communities. What the Christians could not accept was the doctrine that religion was an affair of the state. "Men should indeed render money to Caesar, but should render their very selves to God. Otherwise what will be God's, if all things are Caesar's."<sup>2</sup> When Constantine

<sup>2</sup> Tertullian, quoted in Ernest Barker's, *From Alexander to Constantine*, p. 455 (Oxford, 1956).



recognised Christianity, he gave the Church the right to receive, hold and administer property like a corporation under the Roman law. The church was also exempted from taxes. When the emperor himself was a Christian and the church the possessor of property, the attitude of the Christians towards the State naturally changed. The Christian king now occupied the position of Augustus and enjoyed in Christian terms the same religious status as the Roman emperor. "The king, beloved of God, will already be a partaker in the heavenly kingdom; for he is crowned with the virtues which are inherent in God and he has received in his soul the emanations that come from God; he has become rational from the Universal Reason, wise by participation in Wisdom, good by fellowship with God."<sup>3</sup>

Christian thought now also came under the influence of the Stoics, who conceived of the universe as a unity pervaded by reason and believed in the world-state. The Roman Empire was the visible symbol of this world-state and was accepted as such by the Christians. In Byzantium, the opinion about the king which we have quoted above continued to represent the Christian view of the king and the state. In the west, however, something had to be done to fill the gap created by the fall of the Roman Empire. St. Augustine presented the ideal of a state that was not made by man but by God, and the bishops of Rome gradually gave material form to this ideal by acquiring wealth and power. Till 230, the language of the Roman Church was Greek, and at the end of the sixth century Pope Gregory the Great denied any claim to superiority over all bishops. But there were others who did make the claim, because they believed in it, and because not only in Rome, but also in the whole of Italy, there seemed to be no power that could be depended upon except the Church. In the seventh century, when the rise of Islam involved the Byzantine Empire in a struggle for survival, the Roman Church became independent. The coronation of Charlemagne as Roman emperor laid the foundation for the ideal of a State which was Universal, Christian and ruled by a Pope and an Emperor.

The Muslim idea of the religious world-state had a different character and came into existence in an entirely different way.

\* Eusebius, quoted in Barker, *op. cit.*, p. 479.

To understand it we must first briefly consider the teachings of Islam.

Islam has a body of doctrines. These doctrines have a historical context and cannot be properly understood apart from it. The Prophet was a historical personality, and in the Quran there is continuous reference to human history. Not only this but the revelation begins with the acknowledgement of civilisation, of reading, of writing, of knowledge. From some practices it is clear that there is also reverence for the record in human history of all that has drawn man towards God. The ideal of sacrifice, represented in Jewish tradition by the offering of his son by the Prophet Abraham at the command of God, is preserved in Islam, in the annual sacrifice on the occasion of the Pilgrimage. Idolatry is condemned, and when the Prophet took possession of Mecca he destroyed all the idols in the temple. But the Black Stone, reputed to have been part of the temple of Abraham, who took it from a still older temple, was retained in the Kaaba and must be venerated. All religions have been recognised in principle as expressing the one eternal faith, continuously revealed by God for the guidance of man on the right path. All prophets, whether mentioned in the Quran or not, have to be equally honoured, because they conveyed the message of God. The first man, Adam, is stated to have been endowed with moral sense, and the rise and fall of societies is declared to be due to their regard or disregard for purity, justice and truth. This is a confirmation not only of Jewish and Christian tradition in particular, but also of Zoroaster's teachings about prophets being sent again and again by Ahura-Mazda, and of other similar traditions.

The one, eternal faith which has been continuously revealed and also continuously obscured by the ignorance or wickedness of man, has been called the "Deen." It means belief in God, in a Divine Will constantly expressing itself through nature and man and events occurring in time. Godhood in Islam is a moral and not a philosophic concept, and it has immediate social implications. It is the personal duty of each believer and of each society that professes faith in God to obey the Divine Will, and to strive for the prescribed moral ends. "Deen" also requires belief in revelation. It will be remembered

that the Buddha's search for ultimate truth led to his enlightenment under the Bodhi tree. Zoroaster's experience was similar. In the Bible we are told that the Spirit of God descended upon Christ. In Islam revelation is not regarded as supernatural. It is an event that has often taken place in history, and is a means whereby God makes His Will known to the prophet, and through him to mankind. Whatever is revealed has to be believed, but it is asserted that revelation embodies the highest form of reason, and with the injunction to believe there is the equally definite injunction to think.

The doctrines of Islam are few and simple. The Muslim must believe in one God, and worship Him only. He must believe that Moham-mad was the Prophet of God, to whom the Quran was revealed, but who was a human being like any other. The Muslim must pray and fast and at least once in his lifetime perform the pilgrimage to Mecca. Equal in importance with prayer and fasting is the obligation to pay the *zakat*, a tax which is calculated at  $2\frac{1}{2}$  per cent of savings and capital, whatever its form may be.

A Muslim must regard all men as equal before God. No privilege can be claimed or denied on ground of sex, family, social position, race, language or country. No such distinction is allowed as was made among the Buddhists between the monks and the laymen, or in Christianity between the Church and the laity. Asceticism is forbidden. Historically and socially the novel feature of the Muslim faith is the application of all obligations to all members of the community. This is itself an aspect of the doctrine that life cannot be divided into the spiritual and the worldly, that religion is according to nature and nature consists of both spiritual and material elements. The good life is possible only if this unity of the spiritual and the material is recognised, if man is grateful to God not only for his spiritual enlightenment but for all that He has bestowed to make life possible and agreeable.

Life in society is essential for the practice of Islam, and Muslims have been enjoined to keep their community as well-knit and strong as possible. They could not be only a people professing and practising a particular religion: it was a part of the religion that they should be organised also as a political community. At the same time, a system was evolved

whereby any religious group could become a part of the Muslim body politic, retaining its autonomy and determining the extent of its obligations on the basis of an agreement. It was these features out of which was evolved the idea of the Muslim religious world-state.

The religious development in India during this period consists in the propagation of their tenets by the Buddhists, Jains and various sects, and by the consolidation of the beliefs now comprehended under Hinduism within the limits fixed by the six *darshanas*. Some deities emerge into prominence; Brahma, Vishnu, Shiva become a Trinity; worship of avatars is inculcated, and sects whose chief characteristic is a devotional attitude assume a missionary character. Among these the Bhagvatas deserve special mention. They worshipped Sri Krishna. Side by side with the fervour of theology and devotionism and the speculations of philosophy, we have evidence of liberalism and even of cynicism in the literature of the Gupta period. Though the good man is honoured, the Brahman is not esteemed merely by reason of his caste. Life is not looked upon only as a spiritual quest, and the good things provided by nature and human industry get their share of appreciation.

Towards the end of this period there was a movement in India for the eradication of Buddhism as a doctrine and a philosophy. The leader of this partly intellectual, partly religious movement, to which the devotional sects of the Adyars and Alvars also contributed, was Shankaracharya, the famous advocate of monism (*advaita*), whose view that the physical world as well as the world of sense experience is an illusion acquired great currency and influence.

### III

The western Roman Empire declined rapidly towards the end of the fourth century, and after 476 it ceased to exist. But at Byzantium the ideas and the experience, the administration and above all the law of Rome were taken over and developed. The eastern Roman or Byzantine Empire was for centuries the richest state of Europe, the strongest in military power and by far the most cultivated. Roman law was codified under

Justinian (527-565) and remained a model till far into the modern age, exercising a deep and pervading effect on political and social ideas. The administration was so organised as to increase as far as possible the resources of the state. The emperor was the head and the supreme authority, with the civil government and the army absolutely at his disposal. He appointed the Patriarch of the Church, summoned its councils and issued their decrees, and therefore controlled, if he did not rule the Church. The empire was divided into districts, with a head who was both military commander and civil governor. The army was well-paid, carefully organised and equipped. Justice was administered by professional judges. The civil administration was bureaucratic, and looked after agriculture, industry and trade.

A perpetual drain on the resources of the Byzantine Empire were the struggles with the barbarians to the north and with the Sassanians in west Asia. The Sassanians did not make any contribution to administrative practice or political ideas and merely maintained the traditions of pomp and splendour associated with the king and the court. Khusrau Anushirvan found Persia suffering from tyranny, injustice, corruption, fanaticism and crime. He is reputed to have eradicated these evils and also to have given the country internal peace and security. He fixed the amount of the land tax and allowed payment both in money and in kind. Fruit trees were also taxed, and a poll tax, payable in three instalments, was introduced. He is said to have improved irrigation and built dams, to have guarded the trade routes and looked to the upkeep of the roads and bridges.

Sources for the history of Iran are few. But it is incredible that for the same period of Indian history information should be so scarce. Centuries after a script had been evolved, the writing of history was not taken up. The people were proud of their traditions, but for some reason did not record them. The lives of personalities who attained such legendary eminence as Vikramaditya and Kalidasa are shrouded in obscurity. We cannot, therefore, say anything with confidence about the political ideas or the administration of the Gupta period. All that we have are designations of officers of the central and provincial government, but these designations do not help

us to understand clearly what duties the officers performed, or the framework within which they functioned. We can only gather from the fact that there were no internal conflicts or resistance to or approval of measures of government policy that nothing new needed to be done. The pilgrim Fa-hien noted that "the people are numerous and happy; they have not to register their households, or attend to any magistrates and their rules, only those who cultivate the royal land have to pay (a portion of) the grain from it. The king governs without decapitation or (other) corporal punishments."<sup>4</sup> Fa-hien was a deeply religious man, inclined to see only the good side of things, but even if we take him at his word, the Gupta administration must have been easy-going, and government policy would as a rule have taken the line of least resistance. Most probably the prevalence of the caste system and the division of functions which it dictates saved the government from many problems which arose in other countries because of the clash of class interests.

In China, the Han Empire provided a durable basis for subsequent political and social developments by creating the Gentry, a class supposed to be independent and enlightened. The members of this were selected through a system of examinations. It was a kind of civil service into which anyone possessing the required ability could enter. The attitude of the Gentry changed into one of active or passive hostility during the period of anarchy following upon the collapse of the Han Empire, when their interests were disregarded, but they came into their own again under the T'ang dynasty.

The main problem of the T'ang administration was agrarian economy. An attempt was made to equalise all farms, but because the emperor's relatives and the temples were exempted, the growth of large estates could not be prevented. Local government was complicated by the privileges of the land-owning class, and there was great diversity in the relationships between the landlords and tenants. The administration attempted to regulate civil and commercial life, and census,

<sup>4</sup> The legal punishments for theft, however, were mutilation, imprisonment, confiscation of property, exile and death. *History and Culture of the Indian People*, Vol. III, p. 360 (Bharatiya Vidyabhavan, Bombay.)



registration, tax and labour levies were introduced. In the central administration ministries of home, foreign, economic and financial affairs, justice, armaments and magazines were formed, along with a number of others dealing with the requirements of the palace and the administration of the capital, Ch'ang-an. In the local government, the functions of the civil and military were separated, but generals were placed as military officers in charge not of districts only, but of whole provinces, and were also given the financial administration of the army under their command. This was unfortunate, as it gave too much power to the generals, and the danger was increased when, towards the close of the T'ang period, a Privy Council, consisting mainly of generals, was formed. But the basis of the T'ang administration was stronger than that of the Han, because it was not over-centralised, and all activities were not concentrated in the capital. Loyang and other major towns and various parts of the country participated richly and fully.

T'ai Tsung extended his empire towards Turkestan in the west, and Nam Yueh (the Viet-Nam of our own day) in the south and defeated the Koreans. The kingdoms of south-east Asia were politically orientated towards China, and may have been influenced by Chinese policy, but nothing is known about their methods of administration.

We can now turn to the experiments in political and social organisation implied in the doctrines of Christianity and Islam.

As we have seen, Christianity began as a religion of the poor and its inspiring motive was sympathy and love. But it was also a religion which despised the material world and there were no injunctions as to how social life was to be organised. As Christianity spread, it came under two influences, Hellenistic philosophy and imperial Rome. Hellenistic philosophy led to differences in dogmas and ultimately to serious and sometimes bloody conflicts between sects. The example of imperial Rome induced the formation of the hierarchical organisation of the Church and created the desire to define and exercise authority: Questions of doctrine had to be referred to Councils called together by the Emperor, and the decisions of these Councils could be enforced only through the authority of the Emperor. Constantine gave the Church the right to



hold property, and bishops had thenceforward not only to look after the spiritual needs of their flock, but also to manage the landed property of the Church. The bishops of Rome became in course of time the rulers of a large estate, and had to consider their political interest. It was impossible for them not to be influenced by political ideas. On the other hand, after the downfall of the Roman Empire, they had to provide for the security of the city of Rome as well as their own possessions. Assertions of the authority of the Bishop of Rome as Pope over all bishops began to be made, and it was probably as a part of this policy that Charlemagne was offered the crown of the Roman Empire. Because of the decline of Charlemagne's empire under his successors and the demoralisation of the papacy itself, it was only when Otto I (936-973) became emperor that the religious world-state became a question of practical policy. We shall deal with this in the next chapter.

The Muslim community was first organised as a theocracy. This meant in practice that the Prophet guided the community and was himself guided by what was revealed to him. The directive principle was obedience to the command of God. During the lifetime of the Prophet there were no officers and no administrative system, but (a) decisions were taken by consultation and the right of each member of the community to have his opinion heard was recognised; (b) *zakat* was levied for the support of the needy and (c) agreements were made with Jewish and Christian communities defining rights and obligations in case they became members of the Muslim body politic. The foundations were thus laid for a democratic welfare state entirely religious in spirit but willing and able to include in its fold communities professing other religions on terms that guaranteed their autonomy and the right to profess and practice their religion. Protection from enemies was ensured in return for a tax known as the *jaziya*.

After the Prophet, the head of the Muslim community had three different capacities. He was an elected successor (*Khali-fah*), the leader at the public prayers (*Imam*) and the political ruler (*Amir al Mominin*). The government was still nominally a theocracy. The Quran was the final authority; where the Quran was not explicit, the policy and the decisions of the Prophet served as precedents. But the exercise of discretion

was also lawful, provided it had the support of the general body of Muslims.

The organisation of the Muslim community under the first four *Khalifahs* continued to have the character of a welfare state. A system of administration was built up, governors and judges were appointed, agricultural classes in the countries that came under Muslim rule were secured against expropriation or enforced sale of land, and a system of affiliation of non-Arabs with Arab tribes was devised. *Zakat* was collected and used to help the needy. The spirit which inspired the administration was in some ways idealistic. The *Khalifah* Omar is known to have appeared as an ordinary suitor before a judge, and to have objected to the judge showing him respect on account of his being the *Khalifah*. He is also known to have carried sacks of flour on his own back to the homes of the needy. He was uncompromising in his insistence that no encroachment should be made on the rights of the non-Muslim members of the Muslim body politic, and he officially interpreted a verse of the *Quran* so as to make it an unconditional obligation that needy non-Muslims should be supported by the Muslim community and by the state.

Political differences became acute after the martyrdom in 660 of the fourth *Khalifah*, Ali, and are reflected in the sects that arose about this time. There was a view that the Muslims should not seek expansion of power, but devote all their energies to the realisation of the ideals embodied in the teachings of Islam within Arabia. The opposite view, which under Mu'awiyah's leadership carried the day, represented in its idealised form the policy to disseminate Islam over the whole world, but meant in practice a monarchical Muslim government dominated by Arabs. This government could not claim the right to legislate, but it could also not be prevented from exercising the power which it possessed. There being no person or persons entitled to declare the law, the government under the Omayyads, the dynasty established by Mu'awiyah, followed its own policy of doing what appeared to be necessary or expedient. Its deviations from the principles and the practice of the Prophet's days were so obvious and so serious that the more conscientious Muslims did their best to keep away from it. But the idea of a religious world-state is implicit in Islam.

This state would have at its head a Khalifah inheriting all the spiritual and political responsibilities of the four Orthodox Khalifahs. It would be a composite state of Muslims and non-Muslims, of all races and all countries, whose rights would be safeguarded and welfare assured according to the directions of the Quran and the precedents established by the Prophet and the Orthodox Khalifahs. This would also be a state in which exploitation, usury and immorality would be forbidden; necessities, such as food-grains, would be safeguarded against profiteering, and slavery gradually eliminated.

The Omayyad dynasty was overthrown in 750 because it represented Arab domination and because of an insidious propaganda carried on against it by the adherents of the Abbasids. When the Abbasids obtained power they went out of their way to crush those descendants of the Prophet who were or could become a danger to their authority. But they were also successful rulers, and brought peace and prosperity to the Muslim world. They did not repudiate or evade their functions as Khalifahs or Imams, because they delivered the *Khutbah* and led the Friday prayers.<sup>5</sup> They attempted to establish by argument as well as by force the view that because a large number of representative Muslims directly and the mass of the Muslims indirectly paid allegiance to them by performing the *Bai'ah*,<sup>6</sup> they were entitled under religious law to be regarded as Khalifahs. This view may or may not have been correct, but it was actively opposed only by a small minority, and soon came to be generally accepted and to acquire religious prestige.

The administration of the Abbasids, though it depended like any monarchical rule on the personal qualities of the monarch was, as a system, rational and enlightened. The custom of having a Vizier, or Prime Minister, was taken over from the Sassanians, and this office was given a new character. The administration was divided into departments for the collection

<sup>5</sup> The *Khutbah* is an address delivered to the congregation in the mosque before the Friday prayer. It could be on any subject of general concern or interest, and was usually an occasion for the declaration of policy or expression of the ruler's view. Later it came to have a prescribed form and to be read by the Imam leading the prayers.

<sup>6</sup> Formal profession of allegiance.

of taxes, for the management of the Khalifah's property, for accounts and audit, for the army, militia and police, for protection of clients and slaves, for information (by means of a regular postal service), for record and issue of documents of state, for investigation of grievances, and for payments and grants. Relatively smaller were the departments for public works, and for superintendence of fair dealing in markets, weights and measures, obedience to government orders and behaviour in public. Justice was administered by the Chief Qazi, whose seat was in the capital, and Qazis in towns, the non-Muslims having their own judicial officers. Provincial government was in charge of governors, who were under the strict supervision of the officer-in-charge of information. The larger cities, such as Samarkand, Bokhara, Herat, Hamadan, Basrah, Damascus, had deputy governors, who in their turn appointed committees of merchants with a chief merchant at their head for looking after the commercial life of the town, police officers for maintaining law and order, and judges and other dignitaries.

The power of the Abbasids declined after the middle of the ninth century, and provincial governors began to assume independence. In fact, the Muslim world was so large that it could not be ruled effectively from one centre. But in each of its great divisions the political organisation was modelled on that of Baghdad, and it was considered essential that any ruler who aspired to full legal authority should have his title confirmed by the Khalifah — the recognised descendant of the Abbasids in Baghdad. Even a powerful ruler like Mahmud of Ghazni (998-1030), though he had no fear of the Khalifah and no respect for him, felt obliged to get his claim to his throne and possessions formally recognised. The ideal of the religious world-state with a Khalifah at its head was necessary to maintain the self-confidence of the Muslim world, though the Khalifah may have had no power and no influence over those actually ruling in the different parts of this world.

In western Europe, governments were severely handicapped by feudalism. This was a system of relationships in which protection was given in return for service. The whole land was shared out between the king and his noblemen. These noblemen divided their land among their own vassals or subordinates

and these again among others. Lowest in rank were the peasants, or serfs, who cultivated their own land as well as that of their lord, performed military and other service when required, and attended his court when summoned. In return for this they got protection from all enemies outside the lord's estate. Though in appearance there were obligations on both sides, in reality it was a system in which the peasants were exploited by a hierarchy of landowners. From the political point of view, this system led to the creation of two types of authority. There was, first, the public power, exercised by the hereditary or elected ruler in the name of the people as a whole and with a view to the general interest. Secondly, there was the private power of every big landowner over those who lived on his land, and this power was exercised in the landowner's personal interest by virtue of his right of property.

In spite of this limitation, the rulers attempted to improve the law and the administration of justice, to discourage feuds, to promote industry and trade. The Church laboured on behalf of social peace, supported the kings in their efforts to maintain law and order, and set herself to civilise the barbarian society of Europe by organising education. Further, as we shall see, the monastic orders established works of charity, such as hospitals and alms-houses, reclaimed waste land, improved agriculture, and even set up workshops to revive industry.

Feudalism was adopted as a system in western Europe because, after the destruction of the Roman Empire, there was no other means of preventing anarchy. The economic decline of the Roman Empire was due in part to the barbarian invasions, in part to the operation of other forces. Rome and the city-states of Greece were slave-states, and in Rome government was in the hands of the rich. Slavery began to die out from the first century onwards, because the employment of slaves was no longer economic when land could be cultivated by peasants tied to the soil and skilled workmen could be found for industries and made to work directly or through their guilds.<sup>7</sup> The Roman Empire was drained of its gold currency to pay for the import of luxuries from the east, and this, together with the decline in economy, led both the state authorities and individuals to abandon the use of money

<sup>7</sup> For guilds, see p. 140.

and adopt a barter system. Public employees were paid in kind and so taxes had to be levied in kind. This made the revival of trade and industry very difficult in Western Europe. In the seventh, eighth and ninth centuries, long distance trade became rare and the circulation of money very limited. Only one to two per cent of the population lived in the towns. But early in the seventh century Venice became an independent city-state and a centre for trade with Byzantium and West Asia; it began to perform for civilisation the same function as a maritime city-state of the ancient world.

Byzantium was, during this period, one of the busiest and most important centres of commerce and industry, with a sound economy and a gold currency. Its geographical position was such that it served as a link between Europe and Asia, for the trade routes of south-eastern Europe, west Asia and the Eastern Mediterranean converged here. Unlike Rome, it was a manufacturing town as well, and while its wealth attracted the merchandise of the east, its own industries supplied luxury goods and arms over a wide area. The two most profitable trades, grain and silk, were government monopolies and commerce was strictly regulated. The first model of a rural code, which laid down the principles of a wise agrarian policy, was drawn up at Byzantium.

Contact with Byzantium and Iran brought into Muslim society all the distinctions based on wealth, rank and profession, and introduced the possibilities of class conflict. But Islam also raised the status of the peasant and the artisan, and men who achieved eminence were not ashamed to bear names which indicated that they came from families of tradesmen and skilled workers. Islam also declared that the man who earned his bread by his own labour was the "friend of God," and this added religious prestige to all manual professions.

The Arabs had been participating in the trade between India and the markets of west Asia and the Mediterranean countries, and Islam gave fresh stimulus to their activity. The city of Basrah was founded specially as a centre for trade with India and the east. As the Muslims expanded westwards, they gained control of the carrying trade of the Mediterranean, and industrial commodities, such as textiles, were produced wholesale in many parts of the Muslim world. The security of trade



routes was so important that when, early in the eighth century, pirates plundered a ship returning from Ceylon near the coast of Sind, and the ruler did not take any action, it was thought necessary to send an army and conquer Sind.

We have no records of the commercial activity of India that can give us a clear picture. The carrying trade of the Indian Ocean seems to have been first in the hands of the Persians and was then taken over by the Arabs. Broach and other ports on the west coast were centres for the export of north Indian goods. The trade between south India and the Mediterranean countries was both direct across the ocean and along the coast. The natural products of south India were very much in demand in Rome and the export was on a vast scale. Indian shipping was mainly coastal, but the carrying trade eastwards to Malaya, Sumatra and Java may have been an Indian monopoly. The east coast of India was dotted with seaports and the colonial expansion of India must have followed the trade and trade routes to the east.

Chinese economy during the earlier part of this period bears a strange resemblance to that of Rome. By the end of the second century A.D., the country was greatly impoverished. The wars against the Huns created a great and constant need for large numbers of horses. When the country's supply was exhausted, they were sought from the neighbouring areas. They were paid for in silk, which was procured by heavy taxation. The second reason for impoverishment was the import of luxury goods from the markets of central Asia, which were supplied by India and the west Asian and Mediterranean countries. These luxury goods were paid for partly in gold but mainly in silk. For some time government revenue was calculated and taxes levied largely in silk. The adverse trade balance had a most harmful effect on the state budget and finances, and the lack of currency made barter common.

The revival under the Sui and the T'ang was political as well as economic. Just as some centuries earlier Shih Hwang-ti had stimulated economic activity by building roads, the canal system was now improved and unified, and it provided a major means of transport, especially of supplies to the big cities, as the canals were deep and broad enough for freighters up to a capacity of 800 tons. The spread of Buddhism also made



a great contribution to economic development. Temples and other Buddhist foundations came to be richly endowed with lands and funds. They accumulated large quantities of metal and coined money. Thus they became a source of ready capital and funds or credit. Ultimately, the T'ang government turned against them, and in the ninth century they were deprived of all their wealth.

It is an indication of the highly developed economy as well as of the administrative difficulties in maintaining a sufficient supply of metal coinage that paper began to be used occasionally as currency during the later T'ang period. The practice began with merchants issuing deposit certificates, which came into circulation as means of payment, and it was adopted by the state for its own purposes.

We have seen that trade routes and cities have grown together. Cities have been the live markets for the consumption and the distribution of goods, and trade routes have connected the big cities with each other, the production centres with the sources of raw material and with the markets where manufactures were in demand. In the Roman Empire, peace and economic activity led to an enormous increase in the number of cities. With the decline of the empire the number of cities in Western Europe and their economic activities were considerably reduced. The Eastern empire, however, did not suffer any loss. Byzantium was a large cosmopolitan city with prosperous trades, far-flung commercial relations, and an active commercial life, and there were many other thriving cities also. In the rest of the civilised world cities continued to reflect the progress that was being made in trade and communication. There were cities in China, in the Middle East and in Spain which are believed to have had about a million inhabitants. The expansion of the Muslims promoted industries and the whole Muslim world, from Sind to Spain, was studded with busy and lively cities.

The literature of the period shows that in India city life was highly developed, though the ideal of being close to nature was not given up. It is again unfortunate that except for Ujjain, Pataliputra, Ayodhya, Mathura and a few others, we cannot identify the cities, and the picture we get is of a city life which is not associated with particular cities. From what

we know of the administration, cities seem to have had municipal governments with the chief merchants and the heads of the trade guilds in charge. In some cities there were hospitals and other establishments for public welfare.

Industries in the cities were generally carried on by guilds. We know that from the very earliest times manufacturing processes were kept as secrets, surrounded with mystery and regarded as a kind of magic. Later, in the Hellenistic world, we find associations of people engaged in different trades with a kind of corporate life. The functions of these associations centred around the desire to maintain professional status, banquets on special occasions and collections for the payment of funeral expenses. In the Roman Empire, the guilds were recognised, but placed under the control of the state. They all had a uniform constitution and they were forced to work for the state according to orders given to them. The guild-man was bound to his guild, he could not leave it or even marry outside it. The guilds in India must have been sub-castes and their corporate life would have followed the general pattern of caste organisation. Guilds developed in the Muslim world also. We find cities divided into separate wards according to the guilds and professions, and the guilds insisted on maintaining their separate identity.

The condition of education was as varied as that of cities and city life. The attacks of the barbarians and their invasion of Italy in the fifth century meant the destruction of the educational system in Rome along with other institutions of the empire. From the fifth century onwards the Church gradually undertook the function of education, and Rome was the centre from which missionaries were sent to central and western Europe. One may assert that among the principal means by which Roman culture was passed through to the Middle Ages was the Church. The Frankish kings tried to raise the standard of the education given by the Church. They founded new schools and reformed those already in existence by appointing scholars of merit as directors. Ravenna, Bologna, Pavia and Rome were centres of learning. In 796, Alcuin raised the monastic school of Tours in France into a school for ancient sciences. About the same time, the foundation of a centre of learning was laid at Oxford in England. One of the first

monuments of learning in Western Europe was an encyclopædia in 22 volumes compiled by Herbanus Maurus (784-856).

Among the achievements of knowledge belonging to the Hellenistic tradition was the description by Pappos of Alexandria of the working of the lever, the pulley, the wheel and axle and the screw. Pappos also discovered what is now known as Guldin's law concerning areas and volumes of solids generated by rotation of a plane figure about an axis.

Another outstanding achievement was the preparation by Castorius of a road-map of the Roman Empire in the fourth century. In Byzantium, the ancient sciences continued to be studied and it was here that books were first given their present form instead of being written on rolls.

In India this period begins with the development of classical Sanskrit, of which Ashvaghosha was the first and Kalidasa the greatest master. Bhavabhuti and others carried on the tradition, but the standard attained by Kalidasa could not be rivalled. To this period belongs also the first Sanskrit lexicon, prepared by Amar and known as Amarakosha.

Perhaps the greatest achievement of India was in the field of mathematics. Already in the sixth century the minus sign and zero were being used, and numerals had been evolved which were taken over by the Arabs at the beginning of the ninth century and communicated by them to the West. Aryabhata (born 476) was the first Indian to treat mathematics as a distinct subject. He dealt with evolution and involution, area and volume, progressive and algebraic identities and indeterminate equations of the first degree. As an astronomer he was the first Indian to hold that the earth rotated on its axis, and that the eclipses were not the work of the demon Rahu but were caused by the shadow of the earth or the moon. About this time, the knowledge of Greek astronomy seems to have spread into India, and among the five works mentioned as authoritative in his own time by the astronomer Varahamihira (sixth century), at least three are of Greek origin.

In medical science, considerable progress seems to have been made. Sushruta, who lived in the third and fourth centuries A.D., knew of no less than 760 drugs, organic and inorganic, and 1,100 different diseases. He prescribed different means of diagnosis, such as appearance, hearing, smell, taste, etc.

Vagabhatta, who lived in the seventh century, compiled a book on the eight branches of medicine. His work shows great progress in surgery, such as stitching of the intestines, operation on the gall bladder and plastic surgery of the nose. About the same time pharmacology became a science separate from medicine.

The great centres of learning in India in those days were Taxila and Nalanda. Of the latter we have glowing accounts from Hieuen Tsang and I'tsing, who were deeply impressed by the scholarship as well as by the number of scholars and the magnificent buildings. But we have no precise account of the general system of education. It seems most probable that the old teacher-pupil family institution continued.

One of the outstanding characteristics of the Gupta period was the cultivation of the fine arts, specially painting and dramatics. Every cultured man seems to have had in his house a drawing board, and a vessel for holding brushes and other requisites of painting. The inclination of the Indian mind to systematise and establish standards and norms is evident from the *Vishnudharmottara*, an appendix to the *Vishnu-purana*, which lays down the theory of painting. Dramatic art was systematised in the same way, the types of characters, the plots, the language, the gestures all being prescribed. An extravagance in this direction was Vatsyayana's Kama Sutra, which described the various methods of love making.

Chinese literature and science were both influenced and stimulated during this period by the missionary work of Buddhists. We know that a translation bureau was organised soon after Buddhism got a foothold and translations of Buddhist sacred books from Sanskrit were dictated to several Chinese scribes at the same time. It seems these translations were neither literal nor very correct, but still the enterprise was most fruitful. Among the Indian scholars who participated in this work, the most eminent was Kumarajiva. The influence of the Indian style of writing led to new Chinese styles and the musical form of the Indian *bhajan* created the religious chant of the Chinese. Chinese medicine was greatly enriched by the study of Indian medicine and Indian mathematical and astronomical ideas are apparent in subsequent Chinese literature. A learned foundation of this period was the Hanlin academy, established around the year 750.

The great cultural function of the Arabs was to acquire and communicate knowledge. Translation of scientific works into Arabic was begun by the Khalifah al-Mansur (754-775). Harun al-Rashid (786-809) expanded the work and his son, al-Mamun, collected the standard scientific works of many languages for translation. It was he who made the enterprise into one of world significance. The translation of works from Greek, Syriac and Chaldaic was under the supervision of a Christian, Costa, the son of Luke ; from ancient Persian under Yahya bin Harun ; from Sanskrit under Duban the Brahman. The first observatory was built by al-Mamun, and observations were made concerning equinoxes, eclipses, comets ; the precession of the equinoxes and the movement of the sun and other astral bodies was studied ; the size of the earth, obliquity of the elliptic and variations in lunar latitudes were calculated. If there had been a break in the observations that were being made, and were continued in the city of Harran under the protection of an enlightened Islamic state policy up to the Abbasid times, irreparable harm would have been done to astronomical science. Apart from the astronomers, al-Kindi studied and wrote on meteorology and optics and worked out a complex theory about the lines of force. Imam al-Razi (called Rhazes in Europe, 864-925) was a mathematician, astronomer, philosopher and physician. His treatises on small-pox and measles, apart from other works, were translated into Latin, and his authority was undisputed in Europe down to the seventeenth century. Among mathematicians, al-Khwarizmi (c. 825) was the author of an epoch-making work in which the nine numerals and the zero, with the decimal positional system, were used. Al-Khwarizmi also wrote a basic text-book in algebra, which is generally regarded as a Muslim invention.

All the scientific work of this period was done with the encouragement and support of the state. Al-Mamun himself was under the influence of the school of thought known as the Mo'tazila, which taught among other things that man was a free agent, that the laws according to which human life had to be moulded could not be changeless. The attitude with which the work of al-Mamun's reign was done was as important as the work itself. But science failed to become associated with the enduring features of Islam, and this was probably a major

reason for the indifference shown to it later on, and for the consequent intellectual stagnation.

The spirit of the age is seen at work also in the provision of medical treatment for soldiers, in the foundation of hospitals and homes for lepers and disabled persons, the construction of a network of canals in Mesopotamia for the promotion of agriculture, and the building of roads and rest-houses. With education and the further progress of learning in the Muslim world we shall deal in the next chapter.

#### IV

We have noted already how the institution of slavery and the dislike of manual work among the Greeks and the Romans prevented the application of scientific knowledge to economically useful purposes. In fact, the only definite progress made was in the manufacture of engines of war. The Romans established factories for mass production of pottery and some other goods, but usually the size of factories was small and their output was meant to supply mainly local needs. The downfall of the Roman Empire implied also the collapse of its economic organisation. However, agriculture was soon developed, and water-wheels became common in Europe in the eighth century.

The Byzantine state followed a policy different from that of Rome, and though the only innovation was the culture of silk-worms brought over from China, the silks, fine cloths, tapestry, leather-work, enamel, mining, metallurgy and weapons of Byzantium were famous. In 671, Kallinikos discovered what was known as the "Greek fire," a compound of sulphur, rock-salt, resin, petroleum, asphalt and burnt lime. The art of illuminating books was developed to a high degree of excellence.

In India, the chief articles of export were natural products; among manufactured goods, textiles and ivory work seem worthy of note. Sugar began to be made out of sugar-cane juice about A.D. 300. Skill in India during this period was concentrated on religious objects. It is in the caves of Karli, Ajanta and Ellora, in the gateways of Sanchi and other stupas, that we see the imagination of the artist and the skill of the craftsman at their best.



The achievements of China during this period seem to be most impressive. The Chinese are credited with the invention of the compass, or at least the discovery of magnetic action on the needle, for according to some authorities it was the Arabs who invented the compass.<sup>8</sup> But the horse-collar, the stern-post rudder and printing are undoubtedly Chinese inventions, and had an incalculable significance in the development of civilisation. The horse-collar gradually replaced the band which used to be tied across the breast of the horse and therefore pressed on the wind-pipe. It increased the usefulness of the horse as a draught animal, and in Europe facilitated the development of agriculture and trade. The stern-post rudder made it much easier to steer boats of all sizes, and is a landmark in the development of shipping. The importance of the invention of printing needs no comment. The first book was printed in China in 868. The Chinese appear to have been the first to use iron for other purposes than making tools and weapons, as the first hanging bridges were made there in the third century.

The Arabs learnt paper-making from the Chinese and paper was made for the first time in Baghdad in A.D. 793, and in Cairo in 900. It took more than 200 years for its manufacture to be taken up in Europe. We have already drawn attention to the effect of Islamic social ideas on agriculture and industry. Natural resources were fully utilised, iron being obtained from the mines of Khorasan, lead and silver from Kirman, porcelain and marble from Tabriz, rock-salt and sulphur from north Persia, bitumen and naphtha from Georgia. The glass and silk industry of Syria, the glass and soap of Basrah, Baghdad and Samaria, the silk, satin and brocades made in different towns were masterpieces of craftsmanship cherished all over the world.

<sup>8</sup> Philip K. Hitti, *History of the Arabs*, p. 669. (Macmillan, London, 1946.)



CHAPTER VII  
THE MIDDLE AGES (A.D. 900-1450)

I

HISTORIES which deal primarily with Europe divide historical time into ancient, medieval and modern ages. In this division, the medieval age, though possessing a political and cultural identity and definite characteristics of its own, is regarded mainly as a time of transition. If we look at the world as a whole, this division does not apply. In west Asia, India and China mature civilisations were taken over by new races. They changed their form and might have acquired a fresh impetus. But though large and powerful empires were established, beliefs, organisation and skill remained largely stagnant. The centuries with which we are dealing in this chapter form a kind of watershed, with the European peoples following a fresh line of development, and the Asian peoples retaining the old course and gradually losing political vision and economic initiative. The centre of gravity of human civilisation begins to shift westwards from the twelfth century.

By the middle of the ninth century, the Abbasid Khilafat was on the decline, the power of the Khalifa having passed into the hands of Turkish generals who intrigued and fought to govern in his name. Early in the eleventh century, Iran, Iraq and the larger part of Asia Minor came under the rule of the Seljuk Turks. With the disintegration of their empire, the whole of west Asia was divided up into small principalities. This fragmentation was the main reason for the early successes of the Crusades, which began in 1096-97, and continued with long and short intervals for nearly two hundred years. About the middle of the twelfth century, the Turkish empire of Khwarizm sprang up in the central Asian steppes and expanded southwards towards Khurasan and Iran. This empire went down before the onslaught of the Mongols under Chenghiz Khan (1155-1227), who had mustered all the power of the Mongol tribes under his authority. He conquered Peking in 1215, and then turned westwards. In 1219 he overran Turkestan,

Khurasan and Southern Russia up to the Dnieper. It is impossible to imagine the ruin caused by his hordes. Every city in Turkestan and northern Iran was destroyed, and the more flourishing the city the more thorough the devastation. Of the population, only the artisans were spared, and these only to be deported to the conqueror's capital. The rest of the people were massacred without mercy. In 1258, Chenghiz Khan's grandson seized and utterly destroyed Baghdad, leaving hardly any trace of civilized life and activity. A little more than a century later, Timur the Lame (1370-1405) built an empire with its capital at Samarkand on whatever was left among the ruins, repeating all the horrible massacres perpetrated by his ancestor Chenghiz. His empire included Turkestan, Iran, Asia Minor, Syria, Russia till Moscow and north-west India. Such an empire could not be kept together and it broke up as soon as Timur was dead.

One of the successor states of the Seljuk Empire was established in Asia Minor, with its capital at Brusa, by the Osmanli Turks. The Osmanlis took upon themselves the function which the Seljuks had attempted to perform, of defending and expanding the Muslim world. Once they had established themselves in Asia Minor they advanced westwards. Adrianople was conquered in 1366 and became their capital. Mohammed II (1451-1481) conquered Constantinople in 1453.

While this may be considered a military advance on one frontier of the Muslim world, there was continuous retreat on another. During the latter half of the tenth and the first half of the eleventh centuries, the Arabs in Spain proved themselves most successful as rulers and creators of civilisation. Then the Christian kings of Castille began to recover their lost territory. Toledo was taken in 1085, Cordova in 1236, Seville in 1248. About this time the small kingdom of Granada was flourishing, but it was a small and isolated political unit. It survived till 1492, when the last of the Muslims, or Moors as they were called, were driven out of Spain.

Egypt escaped from the attacks of both the Crusaders and the Mongols. Here the Fatimids established themselves in 969, and their rule lasted till 1172. They were replaced by the Ayyubis (1169-1250), the dynasty founded by the famous Sultan Salahuddin. The Ayyubis were followed by the

Mamelukes (1252-1517), and it was the first Mameluke Sultan, Baibers, who beat back the Mongol advance in northern Syria.

The history of north India from the end of the fifth century onwards was very largely influenced by tribal migrations. We have seen that the Gupta Empire was overthrown by the Huns. Harsha succeeded in resisting the immigrant tribes, but his dominion did not extend far into the Punjab. After him the stream of immigrants flowed steadily into the country. Most of the Rajput tribes are really foreign elements absorbed in the Indian population according to the requirements of the caste system. The history of north India till the Turkish invasion is mostly a record of the attempts of the Rajput chiefs to establish themselves. Some of them, like Raja Bhoj, have become legendary figures. But real advance was made only in the south. Here, in spite of suicidal wars with the Pallavas, the Chola dynasty, founded about 846, was able to expand its power. Under Raja Raja I (985-1016) and Rajendra I (1016-1044) the Cholas extended their influence up to the Ganges in India and across the seas to Ceylon, Malaya and Indonesia.

The first Muslims to come to India were Arab traders. In 711-12, the Arabs took possession of the Sind valley, but did not advance further. Even in the valley their power soon declined and disintegrated. In the ninth century, the immigration of Turkish tribes into Turkestan and Iran had already begun, and while Turkish nobles were becoming all-powerful in the Abbasid court, the Samanid Sultanate was established in north-western Iran and Ghazni became the nucleus of another kingdom. The Turkish invasions of India were a continuation of the migration of tribes which began in the fifth century. The difference was that the Turks were smaller in number, that they considered themselves representatives of a religion and a culture and could not be assimilated within the social system of India.

Mahmud of Ghazni (998-1030) raided India seventeen times and carried off as booty all the accumulated treasures in the temples of north India from Banaras to Somnath. He must have had full knowledge of the country, and though it seems his armies contained Indian elements, his destruction of Mathura proves that he had the barbarian's jealousy of the achievements of civilisation. He was not anxious to acquire

territory and his occupation of the country up to the Ravi was mainly to protect his line of communications. By the second half of the twelfth century the situation had changed, and Mohammad Ghori invaded India with the object of establishing his power here permanently. He took possession of Delhi in 1196, and 10 years later his deputy, Qutubuddin Aibak, became independent ruler of his Indian territories.

The Sultanate thus founded expanded rapidly along the trade routes eastwards and southwards. In spite of the Mongol raids, which became persistent from about 1235 onwards, the Sultans of Delhi extended their dominion to the Deccan plateau and beyond, and the Sultanate attained its maximum limits about 1334. Then it began to break up, and by the end of the century every one of its provincial governors had become independent. The provincial kingdoms were mostly engaged in wars with each other, but some also became rich and prosperous. Among the most flourishing states of the fifteenth century was Vijaynagar, founded late in the fourteenth century. We have evidence of its wealth and splendour from many sources.

Like India, the political destiny of China was also moulded by the pressure of Mongol tribes in the north-west. After the downfall of the T'ang, there were five dynasties ruling in the Yellow River basin, and the first state that was of any considerable extent and power was established by the half-Mongol Liao dynasty (937-1123). To the south of the Liao territory, the Sung established themselves in 960. They were attacked in 1126 by Mongol tribes, but a prince of the dynasty who fled south-eastward founded another state with Hangchow as its capital. In 1205, Chenghiz Khan was proclaimed "Emperor within the Seas." The empire established by him, which reached the zenith of power and prosperity under Kublai Khan (1259-1294), included China, Burma, Annam, Tibet, Central Asia and Europe up to the rivers Theiss and Weichsel. Kublai Khan's subjects do not seem to have been as happy as the glowing accounts of the European visitors to his court would lead us to believe. There were famines and revolts, and in 1368 a Buddhist monk, Chu Yuan Shang, headed a rebellion against the dynasty and drove it out of Peking. The Ming dynasty (1368-1644), founded by him, introduced agrarian

and financial reforms and also extended the frontiers of the empire. In 1382, Yunnan was conquered and six years later the Mongols were driven out of Karakorum. In the reign of the emperor Cheng-tsu (1405-1424), Chinese prestige was restored in the southern seas by means of naval expeditions, Sumatra and Ceylon were made to acknowledge Chinese overlordship and missions were sent as far as Aden and Hormuz.

In Europe, the disorder following upon the break-up of the empire of Charlemagne was remedied in part by the kings of the House of Saxony. Otto I (936-973) consolidated his power and was crowned Roman emperor in 962. Charlemagne had conquered part of what is now known as Westphalia and Bohemia, Austria, Hungary and Slovenia. These territories were inhabited by tribes with their own organisation. One of the problems of an emperor was to enforce recognition of his authority by the tribal chiefs, another to protect these territories, which formed the frontier of Christian Europe, against the attacks of the Scandinavians in the north, the Wends in the east and the Magyars in the south-east. To attain the full prestige of a civilised and Christian ruler he had to have a status in Rome corresponding more or less to his political position. The frontiers of Christian Europe were slowly extended to the north, the east and the south-east, but the tribal chiefs and their territories maintained their identity. In Italy and in Rome the emperors failed to acquire lasting influence. The papacy was under the influence of the emperors from 963 for about a hundred years. Then it slowly recovered prestige through measures of reform and assertions of a supreme religious status independent of the emperor. Frederick I (1152-1190) and Frederick II (1211-1250) were men of vision and imagination. They were, therefore, anxious to centralise authority and to assert their rights as the supreme secular rulers against the Pope. Both Empire and Papacy suffered because of the conflict. The power of the emperors was divided up between the princes. On the other side, papal claims provoked strong resistance, the result of which was that some Popes had to live at Avignon in France as exiles from 1305 to 1378. The exile was followed by a period (1378-1417) when there were two Popes at the same time, one at Avignon and the other at Rome.

One reason for the defeat of the Popes was the rise of monarchies in France and England. France was an ill-defined area at the beginning of the tenth century. Hugh Capet became king in 987, and his dynasty gradually expanded its possessions and built up its power by supporting the rising middle class and the cities. In the thirteenth century, France acquired importance in European affairs because of participation in the Crusades and in the controversy over the extent of the Pope's authority. It was, in fact, a French king who forced the Pope to live at Avignon. But France suffered considerably in the Hundred Years' War with England, which lasted from 1338 to 1453.

England was occupied by the Romans in the second half of the first century B.C. and became a Roman province. Early in the fifth century A.D., the Romans withdrew from the country, which was then conquered and colonised by German and Scandinavian tribes. It was again conquered in 1066 by William of Normandy. His successors ruled both England and the French possessions inherited from him. Security against foreign invasions and the small size of the country enabled the kings, some of whom had an extraordinary regard for the forms and conventions of government, to create a system of constitutional rule. The history of England is unique as an experiment in political organisation.

The Crusades form a turning point in the history of Europe. They were nominally holy wars waged for the reconquest of Jerusalem from the Muslims, in fact they were the result of a strange combination of motives. The Normans, a Scandinavian people, who first settled in Normandy (France), conquered England and began their attacks first upon Arab possessions in the Mediterranean and then on Epirus (north-western Greece). They joined the Crusades from the very beginning, and used every opportunity to realise their ambition to conquer the whole of the Byzantine Empire. The Italian cities, Venice, Genoa, Pisa also joined in the Crusades. Each of these cities was interested in establishing its own maritime empire and making as much profit as possible out of the religious fervour of the kings and nobles who did the fighting. The Venetians even succeeded in converting the fourth Crusade (1204) into an attack on Byzantium. This city was



looted and destroyed and a large number of the inhabitants massacred to enable the Venetians to establish a Latin empire that would give them greater liberty and privileges than the Byzantine emperors were willing to agree to. The Popes were engaged in a conflict with the emperors of Germany, and hoped, by proclaiming Crusades, to get the support of the whole Christian world and add to their prestige and authority. Last among the participants and the largest in number were the knights and noblemen. They were led by kings and emperors who desired fame and honour, but were moved even more by the need to divert the attention of their nobility, so that they might establish or extend their power in their own countries. Their efforts led to the formation of nation-states.

## II

The main line of development in all the religions we have described was towards the determination of the correct beliefs and the creation of institutions through which the way of life required by the beliefs could be established. These beliefs and institutions together make up what is called the orthodox form of the religion. We have seen that among Buddhists the Sangh was constituted, but a large number of sects came into being because it was difficult to decide in many matters what the Buddha had taught. Buddhist orthodoxy was the orthodoxy of separate sects. Christianity was spread by the Church, and its orthodox forms were represented by the Byzantine and Roman Churches. As soon as Christianity was recognised by the Emperor Constantine, orthodoxy began to be enforced with the help of the state. The Muslims had the advantage of possessing in the Quran and the remembered acts and sayings of the Prophet most of what was needed to make the faith clear to the believer, but among them also, public opinion and sometimes the power of the state was called upon to support orthodoxy.

The vast majority of people need to have the feeling that they believe in the right things and act according to the correct laws. They become the support of orthodoxy and the political and social order which safeguards orthodoxy. But there are also people who feel that they are not being true to



themselves or to their religion if they merely repeat what they are told and perform prescribed acts in the prescribed way. They think that those who follow the orthodox religion do so out of habit; they do not believe with their heart. So they endeavour to understand everything for themselves, to get the truths of their religion directly and personally from the source, and they speak almost as if they were the first exponents of their religion. They do not always reject the orthodox creed, but they do claim to know what is important and what is not, and to have the authority to define and declare the true spirit of their religion. Such people are called mystics. They may or may not preach what they believe, they may or may not try to reform others. They may or may not give a systematic form to their ideas. They may become recluses, ascetics, or devotees or they may live like ordinary people, serving God and man in the way that appears most suitable to them. Mysticism has many forms and also many degrees, but the distinctive quality common to all of them is the intense personal realisation of truth.

This period, which we have called the Middle Ages, is also the age of mysticism. We see it in almost every religious community and it seems, like the spiritual revolution, to be a world-wide movement. Why it became an outstanding feature of this period is difficult to answer. It represents obviously the desire for a purer and more intense spiritual life. The distance in time between the believer and the founder of the faith was so great, the established religious ideas and institutions so much an accepted form that the earnest and sensitive believer was forced to look within himself for the sources of truth. The idea of the religious world-state among Muslims and Christians expanded the religious community to such dimensions that it became spiritually necessary to organise small units of like-minded people who could live the ideal life for themselves. The monastery, and its Muslim form, the *Khanqah*, appear inevitably as the social and in many cases the economic expression of the mystic tendency.

Among the Christians there was from the very beginning a strong ascetic tendency, a feeling that everything physical and material was impure. This was the first form of mysticism, and also the most enduring and characteristic form. Contact

with other beliefs and ways of life led to the assimilation and adoption of doctrines and ideas and the creation of sects. The mysticism of those who remained orthodox became more intellectual. This tendency implied the understanding of the Christian religion from a point of view that did not contradict but was still different from the teaching and the attitude of the Church. It became more pronounced because of the study of Aristotle, stimulated by contact with the Muslims. St. Anthony (250-356), whose achievements in self-mortification became a by-word, represents the first type of mystic; St. Augustine (354-430) was the type which sought and attained both spiritual and intellectual satisfaction. St. Bernard of Clairvaux (1091-1153) was the typical ascetic, preacher and admonisher. In St. Thomas Aquinas (1225-1274), who taught that revelation was a means of apprehending theological truth and was not opposed to other means of attaining knowledge, we see the influence of Aristotle and Muslim scholasticism.

Christian mysticism took three other distinct forms. One was of dedication to the spiritual life through love and service of fellow-Christians. This is represented by the monastic movement, which may be described as an attempt to regulate the life of mysticism and asceticism. The origins of monasticism go back to the sixth century, when St. Benedict founded the first monasteries in Europe and called them schools for the service of the Lord. Every monastery had an abbot at its head, and a community of monks who led a self-denying and hard life, but not one of great austerity. St. Bernard of Clairvaux founded a new order on the lines of St. Benedict, but with much stricter regulations. In the thirteenth century, monasticism took a new turn through the establishment of mendicant orders, the Franciscan (1210), the Dominican (1215), the Carmelite (1245), and the Augustinian (1256). Those who belonged to these orders were called friars instead of monks, they did not attach themselves to the monastery or live a secluded life. They served those in need outside the monastery and endeavoured to influence people directly by their personal example.

The second form of mysticism became prominent in the thirteenth century, though its traditions are much older. Hugh

St. Victor (1096-1141) made the Augustinian monastery of St. Victor near Paris the centre of mysticism in the twelfth century, and its influence was widespread. In Germany, mysticism seems to have found very fertile soil. Mechthild of Magdeburg (1207-1282), a woman who was the first to use German as a literary language, and Meister Eckart (c. 1260-1327), who for the first time attempted to express philosophical ideas in German, were outstanding figures. Such mystics gave a personal touch to the teachings of Christianity. There were also mystics like Johann Tauler (1300-1361) who formed a society known as "The Friends of God." This led to the formation of other societies and communities with their own rules of life. Thomas von Kempen (1380-1471) wrote a book, "On the Imitation of Christ," which has become a religious classic. Jan van Ruysbroeck (1294-1381), who was closely associated with Tauler, is regarded as the father of mysticism in the Netherlands.

The third form of mysticism has more the character of a reform movement. It seemed to some deeply religious persons that the Roman Church had fallen prey to worldliness and the desire for pomp and power. It was not what a Christian church should be. St. Francis of Assisi (1182-1226), the founder of the Franciscan Order, was a mystic who was perfectly orthodox. His burning faith, his life of self-discipline, poverty and dedicated service was an open condemnation of the wealth and power of the Church. In England Wyclif (1328-1384), and in Bohemia Jan Hus (1369-1415) were reformers of a different type. They studied the Bible, got their inspiration, their idea of Christian life, from the source, and set it against both the teaching and the practice of the Church. Wyclif and Hus were the fore-runners of the Reformation and the Protestant sects, with which we shall deal in the next chapter.

The study of Greek and Roman literature produced the movement of humanism, represented during this period by the poetry of Petrarch (1304-1374). In humanism we see a new conception of man, of man's destiny, of religion and of culture which had also a subtle mystical quality.

Mysticism appeared among the Muslims as an ascetic movement during the seventh century. The mystics were called "Sufis," a term about the origin of which there is no general

agreement. Their way of life came to be known as *Tariqah*, which means "Path." The first Sufis sought to bring every word, act and thought into harmony with the Divine Will. As Sufism spread, and the process of teaching and learning began, it became necessary to formulate ideas and experiment in methods of self-discipline for attaining the ultimate spiritual goal. Scholars have looked for the non-Islamic ideas that have found their way into Sufi beliefs, and have found the influences of Christianity, Neo-Platonism, Buddhism and, in India, the Vedanta. But the essential thing to realise is that while orthodox religions — Buddhism, Christianity, Islam, Hinduism — tend to reject one another, mysticism looks for support and confirmation, because it does not have any established authority behind it. Sufism in Islam and mysticism in all other religions developed complete systems of thought, but the essential feature of mysticism is personal spiritual experience. This cannot be borrowed; and even if we discover similarities in the expression given to the knowledge derived from this experience, the experience itself, if it is genuine, still remains personal and original. If the qualities or the teachings of mysticism have a universal character, the reason is that the mystic tendency is inborn in man, that truth is universal, and its realisation inevitable.

The earlier Sufis, and most of the later ones, insisted that the *Shari'ah*, the orthodox creed, should be scrupulously followed. Orthodoxy among Muslims was never organised in the form of a church, and open opposition to it might have undermined religion altogether. But we see in Muslim religious history a development that is not seen in any other religions an acceptance of the fact that both religion and mysticism are according to nature, an intellectual and spiritual reconciliation of orthodoxy with mysticism. This was due very largely to Imam Ghazali (1058-1111), who studied theology, dialectics, logic, science and philosophy, and finally came to the conclusion that direct realisation was the only means of attaining the highest truth. He did not reject other means of knowledge; he ranked them according to their potentialities and limitations. He thus achieved a synthesis which was not only logical and satisfying but also stimulated moral and spiritual effort. Islam became in a large measure a mystical faith.

The Sufis believed that the Sheikh, the master or teacher, was indispensable for spiritual guidance. This brought up the question of personality. Here also Imam Ghazali seems to have given the lead. The Prophet Mohammad, on whom had been bestowed the highest revelation, was the Perfect Man, but between him and the ordinary man there were other types of personality, to be classed according to their ability to realise truth through direct personal experience. Sheikh Muhiyuddin Ibn al-Arabi (1165-1240) elaborated the theory of personality to include among the Perfect Men all those who had fully realised their essential oneness with God, the prophets, the elect among the Sufis, and all who had received the divine light.

The importance of the Sufis increased with time. They set the standard of moral conduct, of the spiritual and social qualities that should distinguish the Muslim, of the manner in which the ideal of service should be realised. The symbolism they adopted gave literature an unique opportunity of fusing the spiritual and the beautiful, of identifying God with the Beloved, and the highest virtue with the greatest love. Sufism is perhaps the most valuable contribution of Muslims to human culture.

The relation between the master and the disciple, and the idealisation of the master as the source of spiritual knowledge led to the growth of what are known as "Orders," each of which had its particular discipline. The Qadri, the Chishti, the Suhrawardy, the Naqshbandi and the Moulvi Orders are the most well-known.

Side by side with these orders, most of which were founded in the eleventh century, we find other movements for the reform of personal and social life. There was the movement for the practice of *Futuwwah*, a term which has been translated as "Chivalry." *Futuwwah*, as used by the Sufis, meant "placing others above oneself," and found expression in liberality, self-effacement, rising above disappointment, showing indulgence to the faults of others. Qushairi, in his *Risalah*, has given accounts which show that in several cities groups of people who had resolved to live according to the ideals of *Futuwwah* were formed. Ibn Batuta also mentions small communities or brotherhoods which he came across in Asia

Minor of people who practised the same profession, lived together in *Khanqahs* and supported each other in the cultivation of particular virtues. The guilds, in their ceremony of initiation, included an oath to follow the code of conduct, the *Futuwwah*, prescribed by the guild.

Mysticism took another form in India which was a very significant development in belief as well as in culture. The devotional attitude, *bhakti*, appears for the first time, perhaps, in Mahayana Buddhism, and it is recognised in the *Bhagavadgita* as a means of union with the Divine. But if mysticism is considered as dedication to the higher life, we could go even as far back as the *Upanishads*. There are, however, certain features in the *bhakti* movement of the seventh, eighth and ninth centuries which distinguish it from earlier movements of a similar nature and link it up with the mysticism of later times. This new feature is intense, personal devotion to a particular deity, a love so passionate as to embrace every moment and every aspect of life. The songs of the Adyars, who were Siva worshippers, and of the Alvars, who worshipped Vishnu, have a deep and moving religious quality. Ramanujacharya, who lived in the twelfth century, gave a philosophical background to devotional religion in his theory of modified dualism. He challenged the monism of Shankaracharya, and advocated a view of life and the universe which was not so intellectual, and which provided ample opportunity for the vitalisation of religious life by bringing into play all the higher emotions. Ramanujacharya's followers further developed his philosophy, gradually taking up a position which was opposed to the formal ritualistic religion. This brought *bhakti* more in line with Sufism.

There is reason to believe that the *bhakti* movement in south India was part of a reaction against Buddhism and Jainism. The intellectual attack on Buddhism was led by Shankaracharya. He achieved remarkable success, but that would not have been possible, perhaps, without assimilating some elements of Buddhist thought and religious practice. The extent to which this assimilation can be traced in Shankaracharya's own teachings is, however, a matter of personal judgement. It has also been suggested that the *bhakti* movement was influenced by Christianity and Islam.



This, again, is a matter of personal opinion. Students of comparative religion are rather hasty in drawing conclusions about "borrowing." Ideas can be borrowed, but they have to be assimilated into a system, and this system can neither be coherent nor deep-rooted if the ideas adopted are not organically related to it. The "borrowed" idea must be original enough for borrowing to be possible.

The existence of a Christian community in south India large enough to exercise any influence has been doubted. But the settlement of Muslim Arabs in the coastal cities and in some trading centres in the interior did create a new situation. Certain elements pre-existing in the religious thought of the Indian people surged into prominence, certain moral values, regard for which is inherent in human nature but which Brahmanism had kept suppressed, could now be asserted. When Turkish rule was established in the north and the Deccan, it was inevitable that the *bhakti* movement should be drawn towards the centre of gravity, and Ramanand (1400-1470), who himself belonged to Banaras, spread it in the north. Here the Sufis had already established themselves, sometimes in advance of armies and rulers, and prepared the ground for a rich and creative spiritual life.

The Turks who invaded India desired to have the support of Muslim public opinion, and to prove that they were adding to the glory of Islam. But they were concerned with conquest and dominion, not with proving the moral quality of the Muslim religion and way of life. The Sufis were not concerned with political rule. They endeavoured to represent Islam and the Muslim way of life. They were not missionaries. Their duty was "the stringing together of hearts" alienated by political policies or injured by injustice and cruelty. They were the first to adopt ideas and practices that appeared to them of use in the spiritual striving, and the first to transform the belief that God was immanent in all His creation into a doctrine of the unity of mankind.

In the Far East, during this period, we see the emergence of Amida Buddhism, and its propagation by Eshin (942-1017) in Japan. Later, another form of Buddhism, known as Cha'n, which taught an active, assertive way of life, was introduced in Japan and became very popular. In Tibet, Tsong-kha-pa



reformed religious life by eradicating worldliness and moral laxity among the priests. He placed the Tibetan Church and priest-state under the dual rule of the Dalai Lama, who had political authority and the Tashi Lama, who was given religious authority.

One of the forms in which the mystical element in human nature found expression in China under the Sung and Ming dynasties was landscape painting. There were schools of painting supported by academies or the government, there were artists who kept themselves entirely free. Every style represented a way of life, a spiritual mood. Ni Tsan (1301-1374) was both painter and poet, and each one of his landscapes was accompanied by a poem which expressed in words the mood that inspired the landscape. Side by side with mysticism in art we see an effort to humanise ideologies and beliefs, and Chu Hsi (1130-1200) founded what is known as Neo-Confucianism, by combining the teachings of Confucius with Buddhism and Taoism.

At the same time as mysticism, a development was taking place in Europe which was to have tremendous results and to give an entirely new character to political organisation. This was belief in law, legal rights and the moral obligation to act according to correct legal procedure. The first laws, recognised as man-made, were laid down in Greece and Rome. From the second century A.D., as we have seen, the Romans began to devote special attention to the study of law, and Roman law was codified in 527. Its study was taken up by the Roman Catholic Church, whose own canon law closely followed the Roman model. The Germans, the English and the French had their own customary law, which was coordinated with the feudal organisation of society. It was this feudal organisation, with its system of relationships whose existence depended on a strict regard for rights and duties, which gradually made people not only follow but believe in the law. This belief was the basis for assertion of authority as well as resistance to it, and political thought and practice arose out of and depended upon this belief.

### III

The problems of administration which confronted all the earlier empires have already been pointed out. There are no

changes anywhere during this period which imply any great alteration in the system of government. But there are three different situations, one represented by the Muslim world, the second by China, and the third by Europe.

The pattern of government of the Abbasid Khilafat was not improved upon anywhere in the Muslim world. Everything continued to depend upon the ruler, and the ruler depended on his advisers, military commanders and supporters among the nobility and the learned men. Nobility was not hereditary, but all those in government service, whether civil or military, were given land in place of a cash salary, which reduced both the revenue and the control of the state. The collection of revenue was entrusted to district and provincial governors or to special officers, and revenue accounts were checked. The judicial system continued as before, under the Abbasid Khilafat, but the actual practice of the government as well as the application of the laws lagged very far behind not only the spirit but the letter of the law. The whole organisation of the government, the expenditure on king and court, the taxes, the methods of collection, the punishments, all were more or less contrary to Islamic law and government was reduced to an exercise of judicious policy and force. It is only among some of the sects that we find new political ideas, but they have a predominantly religious colour, and these sects also cultivated a fanaticism which made them into a destructive element and aroused bitter opposition. The *Siyasat Namah* of Nizam al-Mulk Tusi (c. 1000-1091) is a manual of guidance for statesmen which avoids all discussion of principles.

The administration of the Delhi Sultanate followed the general pattern of the Abbasid Khilafat and the other Muslim states. Its besetting difficulty was lack of resources, in particular of cash resources. The splendour of the court could not disguise the fact that large armies, or the officers necessary to enable the government to extend its functions, could not be paid, and the practice of assigning the income from land instead of giving a cash salary tended to reduce the total income of the state. What was worse, it put the cultivator at the mercy of the landlord, who was not concerned with improvement because he could be transferred at any time. The fault did not lie with particular kings or statesmen. The

requirements of a large administration were greater than the economy could bear, and politically the large state was always in danger of going to pieces because the sentiments of loyalty and solidarity were not strong enough and communications were difficult to maintain. On the other hand, a reduction in the size of the state implied a reduction in its resources, and in the volume of trade, for trade is always hampered if goods have to cross many frontiers. Sultan Alauddin (1296-1316) cordoned off a large area, the agricultural and other produce of which could not be hoarded or exported, in order to lower prices. He succeeded in his immediate aim, but it is not known what effect this measure had on economic life, and for how long.

Another weakness of the political organisation was that it was the rule of a small minority, consisting of the sultan and a group of nobles loyal to him. There were sometimes rival groups waiting for the opportunity to seize power, and if there were not, the possibility of such groups being formed was always there. Conflicts were, therefore, very bitter, and opposition could only take the form of rebellion. If a rebellion did not succeed, it was suppressed with the utmost harshness in order to prevent further rebellions, and this made political life a desperate gamble.

The state was in principle subject to the *shari'ah*, according to the standards of which all political measures were judged. Because the Sultan dispensed honours and privileges and appointed the Sadr ul-Sudur, or Chief Qazi and Judge, and approved the appointments of Qazis, he had a hold over just those people who had the prestige and the knowledge of the law which would enable them to pass judgement on his actions. But we have instances of Chief Qazis and learned men speaking out their mind when asked to do so. Far more influential, however, than those learned in the law were the Sufis. They did not accept honours and appointments, and almost all Sufis of the Chishti order carefully avoided relationship of any kind with the sultan and his court, and involvement in political issues. They would live in the *dargah*, where thousands of people of all sorts and conditions came to pay their respects to them and ask for their blessings and guidance. It was the Sufi in the *dargah* who was the real symbol of peace and security,

virtue and justice, and of the sympathy and goodwill which is essential for social and cultural cooperation.

What is known as Indo-Muslim culture had its origin in the *dargah* of the Sufi. The first person to use Hindi as a literary medium was a Sufi, Sheikh Abdur Rahman. Sheikh Farid Ganj Shakar (1173-1265) is known to have spoken Hindi and Amir Khusrau, who is reported to be the first to attempt an assimilation of Persian and Hindi, was a disciple of Sheikh Nizamuddin Auliya. Sheikh Nizamuddin himself was the noblest example of piety, learning, culture and tolerance, and the influence he exercised over the citizens of Delhi was the envy of the tyrant and the greatest consolation of the common man. Sheikh Nizamuddin assigned different cities and regions of India to selected disciples who went and settled there and carried on the work of "stringing together of hearts". These Sufis and their successors took the lead in using the spoken language as the medium of writing and cultured conversation, and gave a shape to the ideal of spiritual unity and a common culture.

The governments of China had to face many baffling political and economic problems. There was, first, the question how far the state would be centralised. The answer to this question depended largely on the division of power between the civil officers, who desired centralisation, and the army, whose commanders desired the utmost power in the area under their command. Then there were the problems of the relationships between landlord and peasant, and between large and small merchants, where the peasant and small farmer as well as the retail trader had to be protected. The interest of the state lay in supporting the farmer and the retail trader, because the landlords and big merchants, while exploiting the poor and creating unrest, did their best to cheat the state out of the taxes due to it. Under the Sung dynasty, the expenditure on government and army continuously increased, while the revenues fell, metal was coined and paper money printed to meet the demand, and there was considerable inflation. To remove the distress created, schemes of reforms were put forward. Ssuma Kuang (1009-1086), agrarian reformer and historian, proposed that crown lands should be rented out and that the landlords should be deprived of all property

rights over their estates. Wang An-Shih (1021-1086), a statesman and poet, was entrusted by the Emperor Shen Tsung (1068-1085) with the reform of the administration when it became clear that the policy being followed by the government was injurious. Wang An-Shih cut down expenditure, raised the salaries of the smaller officials, provided for loans to farmers in order to save them from money-lenders, and opened state banking and barter offices. In spite of all opposition, these reforms remained in force for over fifteen years, during the life-time of the emperor, and much that was good in them survived for another thirty-five years.

The rule of the Mongol dynasty was marked by the oppression of the peasantry, but at the same time the roads and the postal administration was considerably improved and foreign trade was encouraged. The Ming dynasty reorganised the administration and raised the political power of China, but it made no contribution to the theory of political organisation or any experiments worthy of note.

The third situation is seen in Europe. We have already referred to the conflicts between emperors and popes. One aspect of these was intellectual, the question as to who, in the Christian world-state, possessed the highest authority. Another aspect was political, and it concerned the appointment of the officers of the Church. The archbishops, bishops and abbots owned large landed properties, lived like princes and lords, and exercised the same powers. If they were appointed by the emperor, they would be subject to him; if they were appointed by the pope, the emperor would lose both authority and revenue. The popes were, in fact, more powerful than the emperors, because the whole Church recognised their absolute authority, and the question of investiture remained for centuries a matter of dispute.

The most important problem in organisation was created by feudalism. This system was established to prevent complete anarchy, but, as has already been pointed out, it led to a division of authority and power between kings, princes and nobles which interfered with political and economic development. In theory, the king (or emperor) was himself elected, and he had to abide by the conditions under which the great princes and lords held their lands from him. He was bound

to consult them, and he could not go to war or get money or support of any kind from them unless they agreed. In practice, because the king or emperor was himself the biggest owner of land and responsible for government, he had power enough to compel his vassals to obey him. But if some vassal, by inheritance or marriage, acquired a position where he could challenge the king's or the emperor's authority, he would do so. Attached to the big landlord were smaller landlords who held lands from him and were obliged in return to serve him in different ways. The lowest in this system of obligations were the serfs or peasants, who were mostly regarded as the property of the landlord whose lands they cultivated and around whose house they lived.

The unit of the feudal organisation was the manor, or the landlord's house. As the manor aimed at being a self-sufficient unit, needs of different kinds had to be provided for, and there was often a nucleus of trades within it. The feudal system may have been basically unjust and a hindrance to political growth, but if we bear in mind later economic developments, it will appear to have been an advantage that industry was decentralised and spread over the whole country. When opportunities for expansion came, industry and trade did not remain confined to the cities and prosperity was shared by the countryside as well.

The growth of trade with Byzantium and the Muslim world and the contact with the civilised life of the Near East because of the Crusades created a growing demand for luxuries. For this cash was needed, which the self-sufficient economy of the manor could not provide. One of the reasons for the decay of feudalism was the desire of the landlords to commute the services due to them from the peasants into payments of money. The peasants, under the feudal system, were obliged to work for their lord, and could attend to their own farms only when they had finished the work to be done on his land. For them the change also meant benefits, because they could devote themselves entirely to their own farms, and sell their surplus produce. There were bitter conflicts when, in the fourteenth century, the "Black Death" killed off one-third to a half of the population, and the landlords in some cases desired to revert to the original system of service. Other factors



also worked against the interest of the peasant. In some cases, the landlords took possession of all the land in order to farm it out for fixed payments. In other cases, they converted agricultural land into pastures for breeding sheep, which was much more profitable than agriculture.

Feudalism as a system did not possess uniformity, and for this reason political development followed a different line in the different countries and regions of Europe. There was everywhere an attempt by the king or the emperor to assert his authority. The dynasty of Hugh Capet, whose possessions lay in the Isle de France, around Paris, had to struggle against rival powers, and it was only in the fifteenth century that the whole of France was brought under its rule. In the course of this expansion, the French kings set up a machinery for the administration of justice and created a body of civil servants for the management of the royal domains. To build up their resources they sought the help of the towns, which in their turn were enabled to grow because of the royal protection. An assembly, known as the Estates-General, which represented the nobles, the clergy and the townsmen, met now and then and began to exercise influence on the government. But further progress was held up by the Hundred Years' War with England.

In England, William the Conqueror undermined the feudal system of relationships by asking all who held land to take an oath of allegiance to himself. He also called together meetings of the Great Council (*Magnum Concilium*), which included the great nobles, the archbishops and the bishops. When he wanted to levy new taxes, he would summon representatives of the gentry, the independent landowners. In 1215, King John was forced to sign a charter, which was supposed for some time, sincerely if incorrectly, to be the foundation of civil liberty in England. In the beginning the *Magnum Concilium*, which later came to be known as Parliament, met in three groups or estates, one of the nobility, one of the clergy and one of the commoners. In 1265, a Parliament was summoned to which two representatives from each of the towns were also invited. In course of time it became a rule to present petitions to the king, which had to be granted before Parliament agreed to the levy of new taxes. It was thus that a session of



Parliament led to the making of new laws. By the middle of the fifteenth century, the procedure of levying taxes and making laws through Parliament had become habitual. From the time of Henry I (1100-1135), the king had begun to take over as much as was possible of the administration of justice. Henry II (1154-1169) attempted to gain full control of administration and revenue by reforming the judicial system. After him additions and changes were made, sometimes with the king, sometimes the Parliament, taking the initiative; and opposition between the interests of the king, the clergy, the nobles and the commoners tended to strengthen the practice of acting according to the law and custom of the land.

In the development of city life, as we know it now, Muslim civilisation marks an important stage. In Muslim Spain, great care, labour and resources were devoted to beautifying cities. Cordova, Seville and, later, Granada were outstanding examples of large, beautiful cities provided with civic amenities like running water, fountains and parks. In the Near and Middle East there were cities like Damascus, Baghdad, Samarkand and Bokhara that matched them in grandeur. The wealth of these cities was derived from both industry and trade, and they continued to flourish till the Muslims lost control of the Mediterranean in the eleventh century.

Trade with Byzantium and the Muslim world led to the growth of cities first in Italy and then along the trade routes of central and western Europe. In the tenth and eleventh centuries, China and the Muslim world were the centres of industry, while south India and south-east Asia provided some natural products not available elsewhere. The goods brought into Europe by the merchants of Venice and Genoa consisted of cotton fabrics, silks, precious metals, precious stones, pearls, frankincense and myrrh, ivory, cloves, pepper, ginger and aromatic spices. Cane sugar was brought for the first time from Alexandria to Venice in 996. The Crusaders brought back with them a desire for luxuries, and in the twelfth and thirteenth centuries the growth of cities was very rapid. Venice, as we have seen, was founded in the sixth century. Genoa and Pisa came next, and were followed by Florence and Milan. From the eleventh century, cities in Germany began to acquire autonomy, with their own judicial system and market rights.

Emperors and kings found it to their interest to help and protect the cities and promote their trade, just as the cities, which in most cases came into existence after a struggle with their feudal lords and were afraid of their interference, found it necessary to band together and ally themselves with the kings. Generally, cities obtained charters defining their rights and privileges; the Free Imperial Cities of Central Europe had the rights of self-defence, coinage and tolls. Some of the cities, like Magdeburg in Germany, drew up constitutions which served as models for others, and are of great historical importance. The cities in Italy, because of the absence of a central authority, grew into states.

At first all trade in Europe was confined to fairs, mainly local. By the end of the twelfth century, along with national and international fairs, there were flourishing cities with permanent markets. From centres of commerce they gradually became centres of industry and began to influence political policies through their wealth. They attained the height of their prosperity towards the end of this period. The League of Lombard Cities in north Italy, formed in 1159, defeated the Emperor Frederick I in 1176. Lubeck and Hamburg combined, in 1244, to organise protection of the Baltic trade routes. About the beginning of the thirteenth century, the commercial cities of Italy established a system of consulates in the Mediterranean area; towards the middle of the century over 50 cities of the Rhineland formed a confederation for the maintenance of peace and prevention of hindrances to commercial development. The end of the century saw Cologne and the other Free Imperial Cities on the North Sea Coast, which controlled European trade with the Baltic and had offices in many foreign countries, organising themselves as the Hansa League. They were powerful enough to fight and win a war against Denmark in 1370. The Imperial Cities of south Germany were not so fortunate. They combined to fight against the neighbouring princes (1377-1389), but were defeated.

The growth of the towns and formation of merchant guilds went together. These guilds were associations of merchants and sometimes included master craftsmen. They controlled all the buying and selling within the town, kept an eye on all

transactions to prevent price-cutting, hoarding and other malpractices, and helped members if they were ill or suffered serious losses. The guilds had also the character of fraternities. They protected their interests in law-courts, and looked after the widows and orphans of the members. The guild was thus the guardian of the town, of which its more important members were often the chief officers.

Side by side with the merchant guilds there grew up the trade or craft guilds. For a time it was difficult to distinguish between them. Gradually their functions were divided, and the trade guilds made themselves responsible for the interests of the workers, and for the maintenance of recognised standards of work in a particular trade. The trade guilds consisted of masters, journey-men and apprentices. The masters were those whose knowledge and skill had been formally tested and recognised, who had produced the "master-piece" and were considered competent to set up their own workshop and employ journey-men and apprentices. The journey-men were skilled workers who had not the means to set up their own workshops and worked for wages, while apprentices were boys who wished to learn the trade, and lived with the master, more or less as servants.

Before the end of this period, we find a conflict of interests between the merchant guilds and the trade guilds and within the trade guilds themselves. The causes and results of this conflict are too complicated to be described here in detail. Merchants invested money in particular trades by giving raw material and loans to those who carried on the trade as a cottage industry and gradually sought to gain control over them. There were masters of trades who were very successful and used their position to dominate the trade. There was exploitation as well as unemployment. The journey-men formed unions to protect their interests, while those who wished to dominate them sought the help of rulers. Ultimately, the guilds either disappeared or survived with their functions considerably reduced. The cities themselves lost their unique position as feudalism declined, though economically they continued to prosper.

European trade could not develop or the cities expand their commercial activities without a proper medium of exchange.

Feudal economy was based on local self-sufficiency and trading was by barter. The situation was changed, as we have seen, by the slow infiltration of luxury goods from the Muslim world, by the Crusades, which enabled thousands of people belonging to the upper classes to see what really civilised life was like and by the commercial relations, established on an increasingly larger scale, by the cities. The earliest gold currency in feudal Europe was Byzantine or Muslim, but its quantity was limited, and only gradually increased by trade. The supply of silver was larger, but great confusion was caused by the right of every feudal lord to mint money. The assessment of the real value of money was the special function of money-changers, who were to be seen at all fairs and markets.

The opposition of the Church to lending money on interest proved a great hindrance in the beginning to the growth of commerce, and till about the end of the twelfth century the Jews were the only people who lent money. But the pressure of economic circumstances forced merchants to devise means of lending and borrowing money on interest for investment in small and large undertakings. One of the means adopted was to form unions for this purpose. At the same time, banking was developed, and just as some merchants combined to purchase and distribute goods on a large scale, others pooled their cash to provide funds for such ventures. In the thirteenth century, ledgers began to be kept and bills of exchange, drafts and acceptances to be issued. Currency also began to be standardised. In the eleventh century, the mark became the unified currency in the Rhine area; in 1240, the cities around the Bodensee made a currency agreement among themselves, and about the middle of this century the gold florins, gulden, and ducats of Florence and Venice became current in Europe. But lack of sufficient gold and silver coinage remained a handicap till the discovery of the American continent.

In the different fields of knowledge, most of the work done in the earlier half of the period was in the Muslim world. Primarily, it was work of organisation and transmission, but there was also original contribution, specially in the matter of approach to knowledge, and in physics, optics, mathematics, medicine and, above all, historiography. Secondly, the dissemination of knowledge was far wider than it had been before.

While there were centres of higher learning, such as Baghdad, Cairo and Cordova, where the most eminent scholars were engaged in studies as well as teaching, even the smallest town would have a school for basic instruction in religion.

One of the basic concepts of the Muslims was the unity of all knowledge. While individuals might specialise, science was a unity cemented by philosophy. This was an essentially religious attitude, but "on reading Islamic scientific works one is struck by a rationality of treatment that we associate with modern science.... Though the two great mystifications of early science, astrology and alchemy, were also pursued by the Arabs, the greatest figures of Islamic science, such as al-Kindi, Rhazes and Avicenna explicitly repudiated the extravagant claims of these pseudo-sciences." Islamic science had also a secular and commercial background, which "marked it off sharply from that of medieval Christendom, which was almost exclusively clerical"<sup>1</sup> and also from that of the Greeks.

The work in different fields of science and philosophy begun in the reign of al-Mamun was carried on in the many centres of learning. Farabi (870-950) wrote a celebrated commentary on Aristotle, and also commentaries on Greek works on ethics, psychology and science. He was also a mystic with Neo-Platonist leanings, a mathematician and a physician of repute. But perhaps what would distinguish him most from our point of view was his accomplishment as a musician and his treatise on the theory of oriental music. Ibn Sina (Avicenna, 980-1037) was renowned in medieval Europe for his commentary on Aristotle, but he was also a noted mathematician and astronomer, and has been revered for centuries in the Muslim world as the author of the *Qanoon*, and the supreme authority in medical science. Al Beruni (973-1048), philosopher, mathematician and astronomer was a scholar who translated numerous works from the Sanskrit and has left an invaluable account of India as he saw it in the early eleventh century. "He also did some accurate and delicate work on specific gravities, which was not equalled before the time of Galileo in Europe."<sup>2</sup>

<sup>1</sup> Bernal, *op. cit.*, p. 196 ff.

<sup>2</sup> F. S. Taylor, *Science Past and Present*, p. 57 (William Heinemann, London).

Another scholar distinguished for his versatile genius was Omar Khayyam (1007-1123). Among philosophers, the specialists are represented by Ibn Rushd (Averroes, 1126-1198), whose commentary on Aristotle was translated into Latin, and exercised such a deep influence, specially in the University of Paris, that his teachings came to be known as Averroism. Ibn Yunus (950-1009) established trigonometry as a separate science. The physicist, Ibn al-Hasan (Al-Hazen, 965-1039), did much original work on optics, including the reflection and refraction of rays, and we owe to him the theory that the eye is able to perceive because light rays enter the eye. Al Shirazi (thirteenth century) explained the formation of the rainbow. In chemistry, the Muslims discovered how to isolate many important chemicals, including sal ammoniac, saltpetre and a number of oxides, and learned how to prepare sulphuric and nitric acids. There can be no doubt that Muslim alchemy laid the basis for modern chemistry by performing this pioneering work.<sup>3</sup>

"Arabic astronomy was more practical than the Greek. A great many stars were named and catalogued. They (the Arabs) were better instrument makers than the Greeks and more accurate observers, but they made no advance in principles over Ptolemy.... Arabic physics was a considerable advance on that of the Greeks. The excellence of their craftsmanship and their mathematical aptitude stood them in good stead.... Arab medicine and biology show acute observation and report many phenomena that the Greeks did not observe. Medicine, however, was hampered by their religious objection to dissection, without which no great progress could be made. The Arab surgeons were skilled operators and invented a number of instruments."<sup>4</sup>

The Muslim geographers, al-Masudi (tenth century), al-Muqaddasi (tenth century), al-Idrisi (1100-1166) and Abul Feda (1273-1313) travelled more widely than the Greeks, and have left records which are valuable sources of information on a large part of the civilised world. Historiography was a science to which Muslims devoted special attention and Ibn Khaldun (1332-1406) was the first to evolve a philosophy of

<sup>3</sup> S. C. Easton, *The Heritage of the Past*, p. 491 (Rinehart & Co., New York).

<sup>4</sup> Taylor, *op. cit.*, pp. 56-58.



history based on an interpretation of events. He sought to discover the reasons for the rise, progress and decline of civilisations, and arrived at conclusions some of which anticipate philosophies and sociological theories of later times.

Among books written to please and instruct, the *Gulistan* of Saadi (1184-1258) has perhaps no parallel in the literature of the world. Nor does any other book present a more vivid and correct picture of what may be called the educated and liberal, but also worldly-wise, Muslim's philosophy of life. The *Masnavi* of Maulana Jalaluddin Rumi (1207-1273) is a treasure-house of religious thought and spiritual experience. Here, again, one would have difficulty in naming another book in world literature so catholic in its outlook, so intense in feeling and beautiful in expression, so distinctive as the product of a culture, and so universal in its spirit.

There were many centres of cultural contact between Muslims and Christians, and the contacts took many forms, but it is only now that the thick veil thrown over them by prejudice is being slowly lifted. The Roman Church, as we have seen, was the first to take up education, but this must have been very limited in scope. Expansion could take place only through the introduction of new material for study and the stimulus of new ideas. But the Church was anxious to safeguard its doctrines and to prevent the growth of opposition, and it was largely to strengthen its own position that it marshalled the Christians to fight against the Muslims for the Holy Land. But friendly contacts, specially for the purposes of commerce, could not be prevented, and in the eleventh and twelfth centuries large numbers of Arabic books were translated into Latin and could be used for study. It was in these centuries that universities began to be established and it would not be an exaggeration to say that the Muslims provided the foundation for higher learning in Europe. Translation of Arabic commentaries on Aristotle and Muslim scholasticism activated metaphysical and theological speculation. Constantius Africanus (died 1087) brought over all the Arabic works on medicine to Salerno and translated them. He founded a school of medicine here which attained great fame in the twelfth century. The numerals used by the Arabs were introduced to the western world by Leonardo of Pisa in the thirteenth century.



The medieval universities of Europe grew out of the cathedral schools established by the Church. The idea of an institution of learning where all subjects could be studied together was not a new one. But the new universities were more general and more systematic in their teaching. The universities of Paris and Bologna date from about the middle of the twelfth century, Oxford from 1167, Cambridge from 1209. Then came Padua (1222), Naples (1224), Salamanca (1227), Prague (1347), Cracow (1364), Vienna (1367) and St. Andrews (1410).

In China this period is distinguished mainly by the formation of academies of art and the excellence of landscape painting. But an encyclopaedia was prepared during the years 927-983, the study of history was pursued and Ssuma Kuang (1009-1086) wrote his "Mirror of World History" in many volumes. This is considered the highest achievement of Chinese historiography. Books on mathematics were printed in 1083, and Chin-Kiu-Shao wrote over the nine parts of mathematics in 1247. An observatory was built in Peking in 1279. Realistic and social romances were written and the dramatic art was cultivated in the thirteenth and fourteenth centuries.

#### IV

In the history of skill, this period is one of transmission in a literal sense of the technical knowledge of the Chinese through the Muslims to the European peoples. We have already mentioned the discovery in China of magnetic action on the needle (and the possible invention of the compass), the introduction of silk and porcelain and the manufacture of paper. Gun powder was made and used as an explosive in China in the twelfth century. The Muslims, who in the earlier period as well as this performed the function of acquiring, improving upon and transmitting the knowledge and techniques of earlier and contemporary civilisations, learnt the methods of paper-manufacture, silk-weaving and other skills from the Chinese. Their own specific contribution consisted of improved chemical processes in the manufacture of steel, distillation, industrial production of sugar from sugar-cane and of soda, alum, copperas, nitre and other salts for use in the textile industry, the invention, probably, of the compass and of the astrolabe, and

the construction of windmills. These contributions, it must be remembered, were additional to what was already known and practised, and formed the basis of industrial activity and progress, so long as it lasted, in the Muslim world.

The Muslims formed the main agency for the transmission of skills to Europe, though Byzantium also played an important part. The marriage of a Byzantine princess with the heir of an Emperor in 972 led to the introduction in Germany of the skills of goldsmithy, ivory carving, gold-filigree, and enamelling. Because of the Crusades, Europeans learnt the cultivation of varieties of wheat, maize, rice, lemon and apricot, and the techniques of the manufacture of cloths, clothing, leather and leather goods, silks, glass and sugar out of sugar-cane. The first windmills were set up towards the end of the fourteenth century.

These techniques formed the starting-point of industry in Europe. They were soon improved upon and new inventions added. The horse-collar led to the replacement in the eleventh century of the ox by the horse for ploughing and transport of agricultural and industrial produce. Ease and speed of distribution enabled the exclusive cultivation of crops in climates and soils suited to them, and thus indirectly increased productivity. For instance, whole districts round Bordeaux in France were given up to wine-growing, and wine became the first bulk cargo. European industry was first concentrated in the monasteries. From the beginning of the eleventh century, trades and industries began to be built up in the cities. The reconquest of Spain from the Muslims, the havoc wrought in Byzantium by the fourth Crusade and the onslaught of the Mongols on the Muslim world considerably reduced competition, and after the middle of the thirteenth century Europe could export manufactured goods. But we must not forget the capacity of the internal market to absorb manufactured goods, which was due in part to the manorial system.

The use of power is essential for the development of industry. Water power was being used from very early times, and during this period in Europe it was developed much further. The use of mineral coal as fuel began about the middle of the thirteenth century in foundries in the Netherlands and north Germany, and blast furnaces began to be made in these countries and in England and Sweden in the fifteenth century.

The progress of industry also depends very much on devices that save labour and increase production. The cloth industry in Europe was among the first to benefit from the application of the mind to labour-saving devices. By the late thirteenth and early fourteenth centuries, a spinning-wheel with foot-drive was in use, and in England a fulling mill had been invented which trebled cloth production. An invention that does not appear impressive in itself but made all the difference to the housewife and the tailor was the making of needles with eyelets instead of hooks.

The masterpieces of this age, which bear witness to the understanding and regulation of requisite mechanical movement are the "astronomical" clock sent as a gift in 1232 by the Sultan of Egypt to the Emperor Frederick II, the clock of the Nuremberg cathedral where, as the hour strikes, the Seven Electors appear and bow before the Emperor, and the clock of Charles V's palace in Paris, run by weights.

The most revolutionary and the most ominous invention of the period was gun powder. It was used first in China as an explosive by being pressed into hollow tubes, first of bamboo and later of metal. It began to be used in Europe by the middle of the thirteenth century for fireworks. Early in the next century, the arquebus, the oldest form of the gun, was manufactured, and cannon with bronze and iron barrels which could throw balls weighing up to 750 lbs. began to be cast. Medieval armour and weapons could not be made unless the necessary resources in metal were available. War became costly, and only those could fight who were able to bear the cost. Industry and trade destroyed the economy and gunpowder the fighting strength of feudalism in Europe. The introduction of the compass, along with the stern-post rudder, gave that stimulus to navigation which led to the discovery of new lands, while the invention of printing by Gutenberg (c. 1397-1468) in 1445 provided the foundation for a far quicker dissemination of knowledge than had ever been possible before.

## CHAPTER VIII

### GROWTH OF THE NATION-STATES (1450-1750)

#### I

WE HAVE already noted, in the previous chapter, that after the thirteenth century, western Europe gradually becomes the focus of intellectual, political and economic activity. The political history of Europe from the middle of the fifteenth to the middle of the eighteenth century has two aspects. One is the internal history of the continent, the policies, intrigues, alliances and wars among the rulers. These led to the rise or decline of individual powers, to the fixing of frontiers, to the promotion of those ideas, prejudices, ambitions and those half moral, half romantic sentiments which we call patriotism. During the three centuries with which we are concerned, the foundations of the nation-states were laid in Europe, and the nation-states gradually became the pattern for political organisation all over the world. The other aspect of the political history of this period is the expansion of the European peoples, the conquest and colonisation of territories on the continents of America, Africa and Asia. The name given to this development, which was both political and economic, is imperialism. It is more evident in the policies of some countries in this and the succeeding period, but it gradually became the governing factor in the policies of most European states.

The invasion of Italy by the French king, Charles VIII (1483-1498), in 1494, is taken to mark the beginning of the modern age of Europe from the political point of view. The wars in Italy became a contest between France and the Empire, which continued till 1557. France then became involved in a civil war, and Spain rose to power under Philip II (1556-1598). Internal dissensions in the Empire on religious and political grounds led to the Thirty Years' War (1618-1648), which crippled both the Empire and the German states. Spain lost her position because of the revolt of the Netherlands (1568-1648), which were under her rule, the gradual undermining of her sea power by English privateers, and the incompetence

of her rulers. France recovered from the effects of the civil war, intervened in the Thirty Years' War and was supreme on the continent by the middle of the seventeenth century. But the country was bled white by the ambitious wars of Louis XIV (1643-1715), and after the Peace of Utrecht (1713) lost much of her political and military prestige. England, though not desiring to acquire territory on the European continent, was determined to prevent any European state from becoming too powerful, and took the lead in opposing Louis XIV. In central Germany, the Electors of Brandenburg gradually built up their strength. By the Treaty of Utrecht, the Elector of Brandenburg was entitled to call himself King in Prussia, and Frederick II (1740-1786) was in a position to increase his territory and resources at the expense of his neighbours.

In eastern Europe, after the Tatar invasion (1239-1240), the Grand Princes of Moscow slowly rose to power, Ivan III (1462-1505) expanded his dominion eastwards to the Ural mountains, after overpowering the rich trading city of Novgorod. He married a Byzantine princess, and established diplomatic relations with western states. Ivan IV (1533-1584), known as the Terrible, obtained an outlet to the Baltic by conquering Livonia. But he was not so successful in other military projects, and the expansion of Russia was slow. Peter the Great (1689-1725) made a journey to Europe incognito (1697-98) and brought back with him the resolve to westernise Russia and discipline his armies on the European model. He was not very successful in his wars against the Ottoman Empire but, after the end of the war with Sweden (1700-1721), he gained possession of the territory along the east coast of the Baltic (Esthonia, Livonia, part of Karelia). Peter's successors carried on the expansion southwards, and gained European status by joining in wars among the powers of central Europe.

The rise of England represents primarily the expansionist aspect of European political development. After the accession of Henry VII in 1485, there was a long period of peace, and while the kings consolidated their authority by breaking away from the Roman Church (1534), checking the power of the nobles and seizing the lands and properties of the monasteries (1536-1539), a large middle class arose of people who had

grown rich through trade. The looting of Spanish ships carrying gold from America, trade in slaves with the colonies, and trade in cloth and spices with the East continued to add to the wealth acquired by sheep-breeding and trade in wool and woollen cloth. In the reign of Charles I (1625-1649), there was a civil war which ended with the execution of the king, and in 1688 James II was forced to flee the country because of opposition to his rule. This event, known as the Glorious Revolution, ensured constitutional government for the future. In 1707, England and Scotland were united, and came to be known as Great Britain. After the Treaty of Utrecht (1713), which ended a war with France and Spain, there was another long period of peace. The First Navigation Act of 1651, which prohibited the import of goods into England except in English vessels or the vessels of the country producing the goods, and the terms of the Treaty of Utrecht indicate the main directions of British policy. By the terms of this Treaty, France was not to seek union with Spain, was to destroy the fortifications of Dunkirk and fill up the harbour, to cede Hudson's Bay and Nova Scotia, Newfoundland and St. Kitts in North America; Spain was to cede Gibraltar and Minorca, and to grant a contract to the Royal African Company for the supply of slaves to Spanish America for thirty years.

Two other countries which attempted to expand their trade and acquire colonies were Portugal and Holland. Vasco da Gama discovered the sea route to India round the Cape of Good Hope in 1497-98, Pedro Alvares Cabral discovered Brazil in 1500, and Portuguese colonies and trading stations were established in South America, Africa, India, Ceylon and the East Indies. But Portugal was united with Spain in 1580, and the Dutch, who were at war with Spain, expelled the Portuguese from Ceylon (1638-1658) and Malacca (1641), and undertook extensive conquests and annexations of Portuguese territory in South America. The Dutch East India Company was formed in 1602, the Dutch West India Company in 1621, and Amsterdam, the capital of Holland, became the commercial centre of Europe. But Holland had to struggle against England and France to maintain her position. After 1715, there was a steady decline, and Holland was overshadowed by England, of whose system of economic and political relationships she



became a part. The Treaty of Methuen (1703) between England and Portugal reduced Portugal also to the same position of commercial dependence.

The main spheres of European expansion in the sixteenth and seventeenth centuries were the continents of North and South America. These continents, as already mentioned, were inhabited by tribes who had come over from Asia, and this movement seems to have continued slowly over a long period. But it was only in Mexico and Central America, in the valley of the Anahuac, on the Columbian plateau and the Peruvian highlands that civilisation developed. When these regions were discovered in the early sixteenth century, the oldest culture was the Maya, with its centre in the Yucatan peninsula. In the valley of Anahuac, it had been superseded by the Aztec. These civilisations had a highly developed city life, they had evolved a calendar and they could build in stone on a monumental scale. But their concentration on religious ritual and, particularly among the Aztecs, the importance attached to human sacrifice weakened their political organisation. The Chibchas of the Columbian plateau were not so advanced, but the Incas, though they had no script, are considered to have been superior to the Mayas and Aztecs in engineering, architecture and textiles.

After the discovery of the West Indies by Columbus in 1492, the conquest and colonisation of Central and South America was taken up by enterprising Spaniards, and the West Indies islands, Central America, Venezuela, New Granada, Peru, Chile, Rio de la Plata, Mexico, the Gulf Coast, Florida, and the Carolines were in succession taken possession of in the name of Spanish king. But at the same time England, France and Holland took advantage of every opportunity to plunder Spanish ships on the high seas and attack Spanish settlements on the American coast.

In North America, after a period of exploration, the British established a settlement at Jamestown (Virginia) in 1607. Charters were given to settlers and companies formed to organise settlements, of which the Pilgrim Fathers are the most famous. They established themselves at Plymouth (Massachusetts) in 1620. The colonisation of Maryland was begun in 1632. By 1733, thirteen colonies, which later became States, had been established.



The French began their colonisation of North America with the foundation of Quebec in 1608 and Montreal in 1642. They established a colony in Louisiana in 1699 and founded the cities of Mobile (1710) and New Orleans (1718).

The first Dutch settlement was at New Amsterdam (now New York), on Manhattan Island, which was purchased from the Indians for twenty-four dollars' worth of rum.

The discovery of the sea-route to India by the Portuguese and their subsequent domination of the Indian Ocean disrupted the intercontinental trade in this area, and set in train a succession of developments which had far-reaching effects. The states in this region became in practice land-locked, their trade was restricted, their economic progress hampered, and they were forced to depend mainly on agriculture. The Portuguese themselves were not competent to take over the carrying trade or establish relations that would be of mutual benefit.

The Ottoman Empire in West Asia and south-east Europe, the Safawi Empire in Persia and the Moghal Empire in India were as rich and powerful as any contemporary European state. But the pattern of life in these states did not change. Authority was not challenged, political policy was not guided by economic or social interest, industries remained dependent on the patronage of kings and nobles. No clear and satisfying reasons can be given for this stagnation, but most probably the main cause was the complete dominance of traditional beliefs which regulated every aspect of life.

The Turkish advance westwards, which began towards the end of the fourteenth century, continued till about the end of the seventeenth century, reaching its climax in the reign of Sultan Sulaiman the Lawgiver (1520-1566). In west Asia, Sultan Selim I (1512-1520) had conquered eastern Anatolia, Aleppo, Damascus, Cairo (1515-1517) and also come into conflict with the Safawi kings of Persia. Intermittent warfare with the Safawis (1500-1736) continued till both the states declined. Towards the end, the Russians were able to interfere, and the first agreement for a partition of Persia was made between the Russians and the Turks in 1724.

In India, the Lodi dynasty (1451-1526), controlling Delhi, was able through constant warfare to stabilise its position, centralise the administration and make it somewhat effective

against the nobility. But the government was poor and weak, and easily overthrown by Babar in 1526. Babar was a Moghal (or Mongol) chieftain, driven by family quarrels out of his native Ferghana, who established himself at Kabul and then invaded India. In the four years of his rule, and with his army of about 12,000, Babar was not able to do more than defeat his rivals to power in north India, and his son Humayun lost the kingdom to Sher Shah. Sher Shah was one of the most thoughtful, competent and ambitious men of his age, and his all too brief rule of five years (1540-1545) is full of the most extraordinary plans and achievements. His projects were taken up after him by Akbar (1556-1605), who brought the whole of north India from Kashmir to the Narbada valley and Gujarat to Bengal under his rule. His successors, Jahangir (1605-1627) and Shah Jahan (1627-1658), continued the expansion southwards, but Aurangzeb (1658-1707) converted this expansion into a ruinous and demoralising military enterprise. After Aurangzeb's death the Marathas, who under Shivaji had exposed the military and administrative weakness of the Moghal empire, took the initiative and attempted to set up an empire of their own. But their leaders were not sufficiently united in purpose. They were also lacking in the statesmanship necessary to win over the princes and people among whom authority and power had been split up through the feebleness of the Moghal administration. As Indian rulers were intriguing and fighting among themselves, the British, who had factories at Surat, Bombay, Madras and Calcutta, and the French, who had similar footholds on the eastern coast and in Bengal, first found opportunities to interfere, and then began to fight in their own interest. The British were successful in breaking the military power of the French and, on the other hand, in showing that Indian princes could be set up and brought down by intrigue backed with a show of force. The battle of Plassey (1757), which gave the British actual if not legal possession of Bengal, was followed, four years later, by the battle of Panipat, between the Maratha Peshwa and some Indian Muslim rulers under the leadership of Ahmad Shah Abdali, an Afghan chief. This put an end to the dream of a Maratha empire in India, and also of political unity within the country.

We have seen that in the early part of the fifteenth century, the Ming emperors of China had asserted their overlordship in south-east Asia. But the practice of keeping eunuchs at the court and putting too much trust in them led to intrigues and rivalries among parties of eunuchs on such a scale that imperial authority was completely undermined. A Chinese emperor who had gone to fight the Mongols and was taken prisoner was not ransomed for ten years. But when the Japanese invaded Korea in 1592, armies were sent against them and they were expelled in 1598. The Japanese, however, intensified the piratical attacks they had been making on the Chinese coastal cities, and forced the Chinese to give up the idea of maintaining a navy. By the early seventeenth century, the Chinese had already turned their attention to overland routes, and tried with some success to increase their influence in the south by wars in Annam, Burma and Siam.

In 1644, the chief of the Manchu tribal league occupied Peking and became emperor, with the title Shun Chih (1644-1662). The Manchus were foreigners and asserted this fact by forcing the Chinese to keep pig-tails and wear the Mongolian style of clothing, and by giving Manchu officials precedence over Chinese and exempting them from the state examinations as a condition for service. But the literate class, the "gentry", the landowners had become so disgusted with the Ming and with the rule of eunuchs that they gradually reconciled themselves to the Manchu regime. There was no doubt also that the Manchu government enabled China to recover her material prosperity and make significant cultural progress, specially in the period 1663-1736.

A country which assumes importance during this period is Japan. The Japanese are believed to be a mixed group of immigrants from various parts of the mainland of Asia who gradually settled in the islands collectively known as Japan and dispossessed and drove off the original inhabitants, the Ainu. But this process was not completed till the end of the tenth century. The original Japanese religion was Shinto, one of the beliefs of which is that the grandson of the Sun-goddess was sent down to earth and became the Mikado (Emperor).

For centuries the Japanese were slowly influenced by Chinese civilisation. The government was nominally in the hands of

the emperor, the actual ruler was a "Shogun" or general. There was, in addition, the warrior-caste, called Samurai, with its "Bushido" or code of honour. Apart from the fact that the sanctity and the overlordship of the emperor was never called in question, the political, social and economic problems of Japan were not different from those of any other country with a feudal organisation.

Three Portuguese, sailing in a Chinese junk, were forced to land on an island of Japan about the year 1542. Trade relations developed, but the Japanese were disgusted by the quarrels among the Christian missionaries, whom they had at first welcomed in the hope that they would help to foster commercial intercourse with the western nations. The result was that towards the middle of the seventeenth century, all foreign vessels, other than Dutch, were forbidden to enter a Japanese port.

## II

There is no development in west or south Asia corresponding to the nation-state of Europe during this period. The teachings of Islam did not allow of any division of peoples on a racial or a geographical basis. States were created, and they expanded or decayed according to the fortunes of war and peace. The conduct of rulers and the laws and practices of government were subject to criticism but not to any practical form of control. Races and languages were intermingled, and the spiritual and intellectual tendency was to demolish all distinctions and frontiers not recognised by Islam, to unite and not to divide mankind. Interest centred on dogma, on the interpretation of the Quran and the Traditions, on questions of religious law. Reform movements were based on an appeal to the fundamental principles of Islam against current practice, but it was almost entirely an age of conservatism and consolidation. The general tendency in religious thought was towards *Taqlid*, or adherence to what was known and established, rather than towards the exercise of judgement and discretion, though this was recognised as one of the corner-stones of the religious law. This adherence to tradition was applied as a principle in all spheres of life.

In India, the Sufis and the Bhaktas in their own ways gave a strong momentum to tendencies towards spiritual unification. They made them into a general movement which found expression in different forms in mysticism, in social relations, in politics. It was so strong that it produced a reaction, again in these different spheres of life.

The urge for spiritual unity is reflected most powerfully in the teachings of the saint and poet, Kabir Saheb (probably 1440-1518). There was nothing new that he contributed to religious thought, but he gave his ideas a popular form, and brought the profoundest spiritual concepts within reach of the common man. The teachings of Guru Nanak (1469-1539) follow the same pattern, and have primarily a social significance. The ground for the preaching of unity had already been prepared by the Sufi doctrine of immanence. The principle that every people have their own way, their own religion, their own holy place was also recognised, and appears in Sufi poetry as the justification of a wide tolerance.

An attempt was made in Akbar's court to utilise the doctrine of the essential unity of all religions for the purpose of creating political solidarity. The fundamental teachings of several religions were put together, with reverence for—or, as it appeared to some, worship of—the Emperor as the unifying factor. This eclectic movement served at the same time as a means of escape from narrow orthodoxy and of revenge against the orthodox *ulema*, whose fanaticism had become an intolerable vexation. Akbar's search for spiritual unity was continued by his great-grandson, Dara Shikoh. Among other works, he translated some of the Upanishads into Persian. From his Persian a translation was made into Latin, and it was thus that the Upanishads first became known in the western world.

The teachings of Kabir Saheb and Guru Nanak represent one form of reaction to a situation which demanded the assertion of spiritual unity and common humanity. There were other reactions among Hindus which led to what may be called reform movements and to the establishment of new sects. These embody syntheses of the teachings of Islam and Hinduism, or of different forms of Hinduism. Among the most outstanding representatives of the new spirit and eventually the most potent was Goswami Tulsidas (1532-1623). His

*Ramacharitmanas* transformed the story of an epic into a great vitalising force, which at once strengthened a traditional religion and made it the embodiment of a new moral and social idealism. There were Shaivites and Vaishnavites and worshippers of particular deities before him; his supreme achievement consists in having made the worship of Ramachandraji into a people's religion, and in having given a moral basis to the myths as well as the social system of Hinduism.

The history of belief in Europe during this period consists in the interaction of three elements, the intellectual enlightenment, known as the Renaissance, the new religious doctrines collectively known as Protestantism and the Roman Catholic Church. We have also belief of another type gradually coming into prominence. It is not unconnected with religion, but it is not religious belief. It derives from a sentiment slowly created by wars between rulers, by religious and civil strife, by the necessity of effective political organisation and the urge for progress. This sentiment is known as patriotism.

The Renaissance as a historical movement began about the middle of the fourteenth century in Italy and had exhausted itself in northern Europe, where its effects were last felt, by the end of the sixteenth century. In some ways it was a continuation of a movement which began in the twelfth century, and created the philosophy known as the scholastic, of which St. Thomas Aquinas was the most eminent representative. It was not an enlightenment that came suddenly as a spiritual illumination, but it did result in a change of outlook that can be called revolutionary.

Petrarch is regarded as the herald of the Renaissance. He found his inspiration in language and literature, and devoted himself to the study of Latin works of antiquity and to writing poetry. He was among the first to attempt to learn Greek, and help to promote the desire to learn it. Long before the conquest of Constantinople by the Turks in 1453, professorships of Greek had been established at Florence and other Italian cities, and men with literary taste had devoted themselves to its study.

The learning of classical Latin and Greek had a cultural aim, which has been described as the "imitation of the



ancients." It was more than a literary fashion. It was a sincere desire to enter into the spirit and assimilate the outlook of the ancient Greek and Roman civilisations, and as a desire it became widespread because theology and dogma, in the form in which they were being taught by the Church, could no longer satisfy minds that had become aware of the world, its far-flung relationships, its undiscovered oceans and continents and of the achievements that were possible for man. The "imitation of the ancients" was in reality a search for variety and fullness of experience.

The first form of this "imitation" appears as humanism. This term has come to acquire several meanings and its implications are perhaps more important than the meanings themselves. It indicated originally the study of classical Greek and Latin literature for the purpose of intellectual culture and refinement of personality. The purpose was secular, not religious; human, not divine. When once man had become interested in himself and his work, his mind could not be kept within confines of any kind. There was nothing he would not think himself entitled to question, nothing which he would not wish to learn or to confirm by his own experience. This result of humanistic studies was not an accident. It was inevitable. It did not become apparent at once, but within two centuries it completely undermined the order of the universe and the aim and purpose of human life as conceived in the Middle Ages.

The study of classical Greek and Latin literature created the ideals and standards of exact knowledge. When once these standards had been recognised, their application could not be restricted to classical literature only. They were applied to documents; they were applied to the Bible; they were applied to scientific concepts and theories. They were the test of truth. Anything that did not conform to them was rejected, and attempts were made to replace it by ideas and facts that seemed more correct. It was directly or indirectly because of these standards that spheres of knowledge were separated from each other, and moved further and further apart in course of time. One of these spheres was literature and secular scholarship, another religious thought, and the third the study of science.

Literature and secular scholarship did not begin with a denial of religion. But they began to judge principles on the touchstone of human experience. Of this the political thought of Machiavelli (1469-1527) is an outstanding example. Machiavelli was timid and shrewd, and he kept out of harm's way. Pomponazzo (1462-1525), a professor of philosophy, made a fresh study of Aristotle, and proved that according to him the soul was not immortal. This was a blow to many traditional conceptions of Aristotle's teaching, and a decree of the Church forbade professors of philosophy to teach any doctrines that were not orthodox. But Machiavelli and Pomponazzo were extreme cases. Writers like Rabelais (1495-1553) and Montaigne (1533-1592) did not offend the Church or its dogma, but changed entirely the concept of man. "Laughter belongs to man alone," said Rabelais, and deposed asceticism from the place it had held for centuries. "The greatest thing in the world is to belong to oneself." This is Montaigne's way of absolving man from the obligation to surrender himself to Church, dogma and the dictates of society.

Rabelais and Montaigne had their personal views in regard to the spiritual life. The first and most promising synthesis of the new learning and traditional religion was the achievement of Erasmus (1467-1536). His teaching, which he calls the "philosophy of Christ," is taken directly from the Bible. It seeks to revive the original spirit of Christianity, to do away with unnecessary dogma and all observances introduced by priests in their own interest, to make Christianity everybody's religion. His "Manual of a Christian Soldier" was translated into many languages, and for a time Erasmus was the most highly esteemed man in Europe. But he was an intellectual, not a crusader. He abhorred fanaticism, and he had a sincerity and an understanding of different points of view that would not let him take sides. When Luther and the Roman Church declared open war against each other and marshalled their forces for battle, Erasmus was abandoned and condemned by both. But his ideas were too valuable to be ignored, and they are found later exercising a deep influence on both Protestant and Roman Catholic religious thought. It could also be claimed on behalf of Erasmus that he laid the foundation of religious tolerance in Europe.

More immediately and widely effective, however, were the religious reformers, Luther (1483-1546) and Calvin (1509-1564). They were influenced in different degrees by the new learning, and though they did not themselves believe in freedom of thought, their teachings represent the exercise of that freedom. Luther's views fell in line with other beliefs and tendencies, some of them religious, others political. He was an extremely emotional person, and could be very inconsistent, but he was also gifted with reckless courage and a great power of believing and converting. He had an extraordinary mastery of German idiom, and his translation of the Bible set the standard by which German became a literary language.

Luther's spiritual life seems to have begun with an overpowering sense of sin. From this state he was rescued by the revelation that man is saved not by what the Church of Rome considered "good works" but by his faith and God's grace. This belief in grace need not have brought him into conflict with the Roman Church. But he was disgusted with what he thought was the worldliness and the immorality of the Roman Church, and in 1517, when a papal officer came to sell indulgences<sup>1</sup> at Wittenberg, where Luther was teaching at the university, Luther nailed ninety-five "theses" or arguments against indulgences at the door of the church. These theses received wide publicity, and served to bring together all the sentiments of opposition to the Roman Church. These sentiments were political, religious and cultural, and though Luther failed to systematise his ideas, the movement against the Roman Church continued to gather force.

Calvin was a reformer of an entirely different type. When he published his exposition of Christian doctrine in 1539, the time was ripe to define and systematise beliefs that had come to the fore in opposition to the Roman Church. Calvin used his training in logic and law to good purpose, and on the foundation of pure doctrine, derived from the Bible, and belief in predestination he built up a system of moral and religious government. He found the opportunity of putting

<sup>1</sup> Indulgences were pardons issued by the Pope, being remission of sins in return for services rendered or payments made to the Church. For details, see H. C. Lea, *A History of the Inquisition*, p. 41 ff. (The Macmillan Co., New York and London, 1906).

his ideas into practice at Geneva, and provided a model which Calvinist communities could follow wherever they were established.

Luther and Calvin are the most outstanding representatives of the movement known as Protestantism, which is a general term for all those forms of Christianity in which the authority of the Church of Rome is rejected. It is, one might say, the religion of modern western civilisation, and is deeply connected with such conceptions as nationalism, individualism, democracy, capitalism.

Protestantism may be said to be of three types. One is the Lutheran and Anglican,<sup>2</sup> in which the religious community is identical with the political community or the nation, and the Church is under the political authority. The second type is the Calvinist, in which those responsible for the maintenance of the proper religious and moral life are independent of the political authority, but do not themselves rule. The third type is the sectarian, represented by such sects as Puritans, Quakers, Independents, Methodists, in which would be included all those who believe that the church should be a voluntary association, separate from the state and independent of it, and in matters of doctrine as well as organisation and policy the views of the majority of the religious community should prevail. The sectarian type was the most revolutionary form of Protestantism, and though the sects were themselves small, such ideas as the freedom of the individual conscience, separation of church and state, freeing of social life from the control of the church, rejection of all authority except that of the Bible, free interpretation of the Bible under the guidance of the "spirit" or inner light are derived from them.

The Roman Church had dealt with heresies before, but when Luther made his attack, the Pope did not realise what the implications were and what support Luther would get from the people and the princes of Germany and the Scandinavian countries. It was the supporters of traditional belief who came to the rescue. Ignatius Loyola (1419-1558) founded

<sup>2</sup> By the Act of Supremacy, 1534, the king became the "Protector and only Supreme Head of the Church and Clergy of England." This was a rejection of the Roman Church and the establishment of a separate Church of England. Doctrinal changes came later.

the Society of Jesus—known as the Jesuits—at Rome in 1540. He planned in detail the methods to be used in combating Protestantism, and took a prominent part in the discussions at the Council of Trent. This Council was called together in 1545, and its sessions continued with intervals up to 1563. The question of reforming the abuses of the Roman Church was avoided; instead, the definition of the creed was taken up, and the creed was defined so precisely that there was no room for misunderstanding or for concessions to the doctrines of Luther or Calvin or other Protestants. The outward and practical affairs of the Church were so regulated that abuses were got rid of without the admission of the fact that the Roman Church needed to be reformed. In this way, a process of consolidation was completed. The Roman Church armed itself for the bitter wars of religion that took place in France, the Netherlands and Germany, and also for the suppression of doubts and disputes among those who were loyal to the Church.

The definition of their beliefs by Protestants and Catholics—as those adhering to the Church of Rome now came to be called—meant a rejection of all beliefs that differed. This led to persecution. The Catholics persecuted because Protestants, as well as all heretics, were the enemies of the Roman Church and of an order that was, according to them, of divine origin. In all countries which adhered to the Roman Church, but specially in Italy and Spain, a body known as the High Court of Inquisition<sup>3</sup> was entrusted with the task of maintaining the true beliefs and of trying and punishing all who held heretical views. Protestants persecuted people for similar reasons. It was assumed that subjects professing a religion different from that of the ruler would not be loyal, and kings joined in persecutions and religious wars for political reasons. After about a century of bitter and devastating strife, from the middle of the sixteenth to the middle of the seventeenth century, it was accepted as a principle that the religion of the ruler would be the religion of the people.

This did not, however, solve the problem, because the fact of a ruler professing the Catholic or a Protestant faith did not itself prove that the ruler was in the right. The century of struggle was also a century of active political thinking,

<sup>3</sup> The Inquisition was originally established in the thirteenth century.

Catholic and Protestant writers arguing in their own interest. A political theory that almost acquired the position of a belief was that above and beyond all laws made by men there was a law of nature, and equally above and beyond all laws defining the powers of rulers over their subjects, there were natural rights which belonged to man as man. Governments could be established and rulers set up, laws could be made to regulate relations between rulers and subjects, but this did not mean that the law of nature ceased to operate and could not be appealed to. It also did not mean that man lost his natural rights completely. Whatever the distribution of powers and rights between rulers or subjects, it had to be based on a contract. The idea of a contract was taken from feudalism in which, as we have seen, every person stood in some legal relation to some other person, and from the charters given by kings to their subjects, in which the relations between them were defined. But the theories of Grotius (1583-1645), Hobbes (1588-1679), Locke (1632-1704) and Rousseau (1712-1778) show that the theory of a Social Contract could be made to justify any political system. It was, therefore, abandoned towards the end of the eighteenth century. But the view that all men have natural rights, and that governments are responsible to the people, which emerged from the idea of a Law of Nature and of a Social Contract, gained greater and greater strength and eventually became a belief.

Another result of the Social Contract theory was that the terms "ruler," or "sovereign," "government" and "people" came to have a more precise meaning. This strengthened the tendency, produced by common interest on the one hand and conflicts and wars on the other, that led to belief in nationalism and to the formation of nation-states.

We have seen that religious beliefs influenced political policies for a century. How far did they influence the development of trade and industry and the rise of what is known as capitalism?

Luther looked at economic life with the eyes of a peasant and a mystic. His ideas tended to increase princely and feudal power and to retard an economic organisation that was fairly advanced. Luther's doctrines were, perhaps, the first body of systematic religious teaching which can be said to recognise and applaud the virtues which create wealth. Their ideal



Christian is the man who conducts his business with a high seriousness, as if it were itself a kind of religion. Puritanism, a form of Calvinism that attained considerable influence in England and the British colony of New England in North America, produced a type of character which did not create capitalism but added to its energy and vigour. The essence of Puritan theology was that it made the revelation of God to the individual soul the sum and substance of religion. The Puritan was morally self-sufficient, believing in himself and his economic interest, struggling forward like a soldier in enemy territory. He idealised his personal responsibility and asserted his individual rights with almost religious fanaticism. He saw in poverty not a misfortune but a moral failing, a proof of God's displeasure, and in riches the reward given by God to His chosen servants. He frowned on any neglect of necessary affairs "upon pretence of worship." Limitless increase and expansion became the goal of the Christian's efforts. The world existed not to be enjoyed but conquered, and only the conqueror deserved the name of Christian.

This attitude met with opposition also. Preachers of the reformed churches called down fire from heaven against the new idolatry of ownership and property. But when the performance of what was recognised to be duty was profitable, why should not profit-making be considered a duty? The belief that commercial enterprise is an obligation imposed by God satisfied the consciences of those who worked for gain, and they were not moved by denunciations of uncharitable greed. And while the Church insisted that all men were brethren, "it did not occur to it to point out that . . . the brethren of the English merchant were the Africans whom he kidnapped for slavery in America, or the American Indians whom he stripped of their lands, or the Indian craftsmen from whom he bought muslins and silks at starvation prices."<sup>4</sup>

A survey of beliefs during this period must include the desire for the advancement of scientific knowledge. It was a desire whose creation was due to three chief sources: first, a new study of the learning of Greece; secondly, a growing dissatisfaction with the inaccuracy and small extent of man's knowledge of the world; and lastly, from the growing interest

<sup>4</sup> R. H. Tawney, *Religion and the Rise of Capitalism*, p. 188 (Pelican).

which attached to industry, as its products became socially more important.<sup>5</sup> In almost every field of science classical authority had to be challenged, and existing views were disproved through exact study. Aristotle and, after him, the Muslim and Christian thinkers of the Middle Ages assumed that everything had a purpose. The behaviour of things, from the sun and the stars to the growth of trees and the properties of minerals was explained by saying that they had "the natural appetite to do what they were known to do." The scientists of the early modern age made observations and sought for increasingly greater precision, they kept accurate records of their observations and published them, and more and more they abandoned preconceived ideas about the nature of the universe. They did not deny the possibility of a purpose behind everything in the material world, but they desired to study it more closely and to prove that it was more orderly and reasonable than it was supposed to be. It was not the achievements of science but the approach and the conviction of the correctness and of the adequacy of the methods used that gave to interest in science the quality and the character of belief.

We have referred to patriotism as a new type of belief that begins to have more and more influence. It is not based on dogmas and can be only vaguely defined. It consists of a feeling, largely if not entirely irrational, that mankind has been divided by Nature or Providence into nations, that each nation represents a standard of morality, culture and impulse for progress. A man must seek the good of his own nation because in some way or other it stands for the highest form of morality and social and personal conduct. Patriotism thus becomes synonymous with nationalism. In China, national sentiment was created by the constant pressure of the Mongols, leading eventually to the conquest by Chenghiz and the rule of the Yuan dynasty; by the effort made by the Ming dynasty to set up a truly Chinese civilisation and society; by continuous Japanese raids; by the early policy of the Manchus, who insisted on discrimination against the Chinese, and by the first contacts with the Europeans. Wang Yang-ming (1472-1529) built up a system of thought in which the teachings of

<sup>5</sup> Taylor, *op. cit.*, p. 71.

Confucius formed the base and other elements, chief of which was Buddhism, had been assimilated. This was considered under the Mings as the foundation of a state doctrine and a social order. Under the Manchus, all these events and tendencies converged to create a sentiment of dislike for foreigners and respect and admiration for Chinese civilisation. But this sentiment, though strong and genuine, did not find support from the state and did not organise itself politically, and in this respect it differed from the nationalism that was developing in Europe.

Patriotism in Europe was given one of its earliest and most portentous expressions by Shakespeare in a description of England:

*This royal throne of kings, this sceptred isle,  
This earth of majesty, this seat of Mars,  
This other Eden, demi-Paradise;  
This fortress built by Nature for herself  
Against infection and the hand of war;  
This happy breed of men, this little world;  
This precious stone set in the silver sea,  
Which serves it in the office of a wall,  
Or as a moat defensive to a house,  
Against the envy of less happier lands;  
This blessed plot, this earth, this realm, this England,  
This nurse, this teeming womb of royal kings,  
Fear'd by their breed, and famous by their birth,  
Renowned for their deeds as far from home,  
For Christian service and true chivalry,  
As is the sepulchre, in stubborn Jewry,  
Of the world's ransom, Blessed Mary's son.*

This is one aspect of patriotism. Another aspect is seen in the views of the "Politiques," a group which grew up in France during the religious wars of the sixteenth century. The Politiques considered the state of more importance than the Church, and religion far less important than it was supposed to be. They wanted peace, order and progress, and looked upon monarchy as the surest means of attaining these ends. The third aspect, the identification of patriotism and the nation-state

with a particular territory, language and religion is represented by the withdrawal in 1579 of the Catholic Belgians from the movement of liberation from Spanish rule. This led to a division of the Netherlands and ultimately to the creation of two nation-states on a racial, linguistic and territorial basis.

### III

The forms of political organisation known and recognised in the world today can all be traced back to the ideas and the experiments of European nations. But before we describe them it would be fair and may also be instructive to outline the system established in the Ottoman Empire by Sultan Suleiman, the Lawgiver.

The Ottoman Empire was a political society composed of several religious communities. In accordance with Islamic law, these communities were entitled to religious autonomy, to the maintenance of their social system and to protection against external dangers. The Sheikhu'l Islam, the highest religious officer of the empire, was the guardian of the rights of the religious communities. Sultan Selim, anxious to simplify the structure of the Ottoman state, desired to force all non-Muslims to accept Islam, but was told by the Sheikhu'l Islam that he did not have the right or the power to do so. In fact, in spite of all the injustices that may have been committed, there was more tolerance of alien beliefs and practices in the Ottoman Empire than in any contemporary Christian state. For the administration of the empire, a service was constituted by levying a tribute of children from the Muslim and non-Muslim subjects. This has been described as a savage practice, in that children were torn away from their parents. It has also been held that a brilliant or at least happy future being assured for the child, his parents were generally willing to hand him over to the state. The children so selected were brought up under a rigorous discipline at the Court and, when mature, entrusted with civil and military offices and duties. It was believed that because they would be free from the influences of family and have no attachment to any particular locality, they would be honest, devoted to the Sultan and able to appreciate and promote the best interests of the state. The

great defect of the whole system was that its working depended entirely on the personality of the Sultan.

In India, the Emperor Akbar established the system of Mansabdars with the same end in view. This system also depended for its working on the personality and ability of the emperor, and had the additional defect of being a millstone round the neck of the agriculturist.

In the development of the European nation-state we see two attitudes. One is the glorification of monarchy as representing the nation, of loyalty to the king as the emblem of patriotic devotion. The other is the self-assertion of the people and the development of a form of administration in which the nation itself was associated to some extent or other. The first attitude is represented by the Bourbon dynasty of France and the second by the Swiss Confederation, the Dutch Oligarchy and the parliamentary government of Great Britain.

The Swiss are noted in European history for their love of liberty. From the earliest times the different communities, known as cantons, lived an independent life. In 1291, three cantons formed a League, and thereafter the tendency was for more and more cantons to join the League, which came to be known later as the Confederation. This Confederation remained very loose and, during the Reformation, Switzerland went through a period of religious strife. It was also only gradually that the territory now included in Switzerland was demarcated. The independence of the cantons and the absence of a central authority was possible only because of the division of the country by mountains into small, separate units.

The situation in Holland was politically somewhat similar. The units which came to form the Dutch Republic had existed earlier as semi-autonomous groups, with representation in the Estates, an assembly which granted taxes and troops to the overlord. In 1579, the units, now known as Provinces, declared their independence, and by the Union of Utrecht conferred hereditary Statthaltership, or rule, on Prince William of Orange. In 1648, by the treaty of Westphalia, the independence of the Union was recognised and Holland became the Republic of the United Provinces. Though Holland produced able statesmen, the fusion of different elements required for a nation-state did not take place, the government was in the

hands of the rich and constitutional procedures were not sufficiently well established to provide stability.

In England, the Tudors first made use of the dissatisfaction against the nobility caused by the Wars of the Roses (1455-1485) to deprive the powerful nobles who had survived the wars of all real power and influence. When this had been achieved, they made use of Parliament to increase royal authority. Henry VIII (1509-1547) and Queen Elizabeth (1558-1603) were shrewd enough to realise that they could attain their ends best by using Parliament as the instrument for carrying out their policies. Henry VIII led his country against the Pope, Elizabeth against Philip II of Spain. But the Stuarts, who followed, possessed neither the ability nor the tact to use Parliament for their own ends and to avoid open clashes. The attempt of Charles I (1625-1649) to rule without Parliament led to the Civil War and to his execution. But monarchy was restored after an interlude of ten years of republican government. In 1688, the Glorious Revolution followed upon the attempt of James II to impose Catholicism. England continued to have a monarchical government, but the Bill of Rights (1689) and the Act of Settlement (1701) fixed limits to the royal power which assured the establishment of a constitutional monarchy. After the death of Queen Anne (1702-1714), a German prince inherited the throne as George I (1714-1727). He and his successor George II (1727-1760) did not know English and were not interested in politics. They did not attend the meetings of the ministers, now known as the Cabinet, which meant that in practice the king did not rule and government was entirely in the hands of a Prime Minister and ministers who had the support of Parliament. All the laws were made and all policies decided upon by discussion in Parliament, which had also full control over the income and expenditure of the government. We would not say that the government was democratic according to present standards, because the representation was limited in practice only, as men of wealth and position could become members of Parliament. Policy also, specially in domestic affairs, was not very enlightened. But there can be no doubt that the government was more stable and more responsible than any other in the world.



The functions of the government, according to the views of the most progressive statesmen of this period, were defined by the theory of what is now known as Mercantilism. According to this theory, the welfare of the nation and the health of its national economy depended upon increase of population, increase of precious metals, an active and expanding foreign trade and an emphasis on the development of commerce and industry as against agriculture. Apart from increase of population, success in achieving all the other aims depended upon the ability of each state to grab the most of all that was worth having, and it was assumed that the prosperity of one state could be attained only at the cost of some other state.

Rivalry and competition were thus believed to be unavoidable. Each state had to provide for security against enemies and doubtful friends. There were two means of attaining this, diplomacy and military and naval strength. The diplomacy of some countries appears to have definite objectives. France desired at all costs to prevent encirclement by the Hapsburg rulers, whose authority extended from the Netherlands, across Germany and Italy, to Spain. The aim of English policy was to maintain balance of power between France and the Hapsburg empire. But the general tendency of the powers to expand made combinations on a small or large scale necessary. As there were no traditional friendships, there was no trust or security, and at least in the early part of this period, diplomacy was a combination of craft and cunning and a light-heartedness in regard to international agreements. But the methods of diplomacy changed very definitely. Because armies could be more swiftly assembled, information services had to be better organised. Apart from ambassadors sent on specific missions, there were resident representatives and secret agents, spies and informers. The large bulk of the diplomatic reports of the period show how closely governments were kept in touch with events and a postal service that could meet the needs of diplomacy also began to be developed.

The changes that took place in the attitude towards military power were even more significant than those of diplomacy and international relations. By the fifteenth century, it was being found necessary to organise military power on a permanent

basis and any state which desired to maintain itself had to possess an army of sufficient strength that could be put into the field at once. The first great change was the appearance of the professional soldier. The Italian cities, the great money-powers of the early part of this period, were the first to employ and to rely entirely on professional soldiers. Money attracted into military service new classes of men, free from traditions, and because of this new weapons and new forms of fighting could be introduced and developed.

Some battles towards the close of the fifteenth century, in which foot soldiers defeated well-equipped armies of the old type created a sensation. Henceforth the infantry acquired an increasingly important position in military organisation. The armies grew larger and larger. Apart from this expansion, the development of science led to greater and more effective use of artillery. Armies in 1750 had twice as many cannon per soldier as in 1650. Ships also began to be armed with cannon. The science of military architecture was revolutionised because of the use of artillery, and the designing of fortresses became a learned art. A number of the greatest scientists turned their attention to problems relating to the technical side of warfare, and the technical services were gradually developed to meet the growing needs. All this involved additional expenditure, and the cost of maintaining armies became a great burden on the resources of states. Taxes had to be increased, and this led to conflicts between governments and peoples. On the other hand, standing armies gave governments greater power, and the state could assert its authority by a swift use of military force to suppress rebellions. The development of military science gave Europeans an advantage over the Asian peoples, and was one of the main reasons for success of their expansionist policies in this continent.

For transport, communication and supply ships were essential, and the fortunes of war were affected by naval strength. For a time ships were hired, but gradually England, Holland and France built up navies, England acquiring naval superiority over all other nations after the seventeenth century.

It would perhaps be too much to say that all conflicts and rivalries between states during this period were really economic and not political. But every state had to possess resources,

and during the earlier part of this period, we sometimes see rich bankers playing a decisive part in political affairs. It was almost usual for ruling princes to get money from the rich merchants in return for concessions and monopolies. For though the volume of trade increased continuously, it was still not large enough, and monopoly became an established method. The Italian cities, Venice, Genoa, Pisa, Florence, aimed at acquiring monopoly, the Hansa League was formed with the same object. In England, groups of merchants banded together to monopolise markets or goods, and ensured this monopoly through the grant of Royal Charters. Possession of lands discovered and monopoly of trade with them was granted by the Pope to the kings of Spain, and charters were granted by the rulers of England and France to companies which organised settlement of emigrants in North America. Reaction against monopolies also began very early. It was not because the Ottoman Empire closed the trade routes to the east, but because trade with the east had been monopolised by the Italian cities, that people set out to discover new routes. The explorers were inspired by the commercial motive of breaking a monopoly. The pirates who plundered ships carrying goods in the Atlantic were also fighting against the Spanish monopoly, which they did not recognise. There is a view that Parliamentary opposition to James I (1603-1625) and Charles I (1625-1649) was due primarily to the fact that they obtained money by granting too many monopolies for the starting of new industries, thus closing down or narrowing the field of commercial and industrial enterprise for others.<sup>6</sup>

One of the most important results of the discovery of America was the import of enormous quantities of gold and silver into Spain and its distribution through channels of trade all over Europe. An additional means of acquiring capital was the slave trade, which developed because of the need of labour in the American settlements. Licences and charters for this trade were granted by the kings, and it thrived because of the increasing need of cheap labour and the high death-rate of the slaves. It is difficult to give even an approximate estimate of the total number of slaves imported into America, but it would no doubt run into millions. The treatment of the slaves from the

<sup>6</sup> Maurice Dobb, *Studies in the Development of Capitalism*, p. 165.

time of their capture in Africa to their sale in America was most inhuman, and the conditions of work allowed only the hardiest to survive. A particular instance will show both the financial advantage and the moral outlook of those engaged in this horrible business.

"The most celebrated incidents in the early years of this trade are the three voyages of John Hawkins of Plymouth. His first voyage of 1562 left him the wealthiest man in Plymouth, his second voyage of 1564 left him the wealthiest man in England and his third voyage of 1567 led to . . . open naval warfare between England and Spain."<sup>7</sup> At the same time "he drew up for the guidance of his men certain rules of conduct, the first two of which were, 'Serve God daily' and 'Love one another'." And he received a knighthood as "a token of the iniquitous trade he had made popular in England".<sup>8</sup>

Abundance of gold and silver removed a great handicap to trade by providing opportunities for the accumulation of capital and expansion of industrial and commercial enterprises. Certain changes had been taking place which prepared the ground for this expansion. The guilds were breaking up, the craftsman, unable to procure raw material or deal directly with the consumer, was becoming a simple wage-earner, and in the textile, leather and smaller metal industries a type of capitalist who was half manufacturer and half merchant was beginning to appear. Early in the seventeenth century, there had already been a sufficient amount of technical development to enable organisation of production in a kind of factory. The processes of production were also changing in such a way as to increase the output. William Penny, a famous seventeenth century economist, wrote: "Cloth must be cheaper when one cards, another draws, another dresses, another presses and packs, than when all operations above-mentioned were clumsily performed by the same hand."<sup>9</sup>

The same way of thinking was applied to the problem of procuring raw material, manufacturing goods and finding markets. Persistent attempts were made to establish a new

<sup>7</sup> *New Cambridge Modern History*, Vol. I, p. 457.

<sup>8</sup> J. K. Ingram, *The History of Slavery* (A. & C. Black, London, 1895).

<sup>9</sup> Leo Huberman, *Man's Worldly Goods*, p. 84 (Gollancz).

and "colonial" trade system. It was argued, for instance, that by having colonies in North America, England could rid herself of dependence on Spain for oils, raisins, oranges, lemons, skins, on France for woad, salt and wines, on the Baltic lands for flax, pitch, tar and masts. France also was in the late sixteenth and seventeenth centuries dominated in her trade policy by the desire for self-sufficiency.<sup>10</sup> The political interest of the rulers and the profit-motive of the merchants and manufacturers combined to stimulate trade, and the abundance of gold and silver created the class known as the bourgeoisie, and the business organisation known as the joint-stock company, which could draw upon the resources of a far larger number of people than the old, exclusive, monopolist companies.

The break-up of the guild system was the cause as well as the result of the conflict of economic interests and the drive for expansion. The tremendous increase in the quantity of gold and silver in circulation undermined all economic relationships based on custom and hastened the changeover to a free capitalistic economy. There was a great rise in prices, and all the people with fixed incomes suffered hardships. Landlords enclosed their lands and also began to charge very heavy rents. Peasants were forced to leave their farms, and the legislation of Elizabeth's reign in England to control vagabondage indicates how common the evil had become. It also shows how the landlords used the authority of the state to cover their own interests and to enable them to exploit the peasant. The number of beggars in the sixteenth and seventeenth centuries was astounding. About the year 1630 they were one-fourth of the population of Paris.

The advancement in science during this period is due as much to human ingenuity as to the development in organisation, particularly to the printing and publication of books. The respect and influence enjoyed by Erasmus has been attributed to the printing and circulation of books, and perhaps without this means of propagating ideas, the Reformation would not have been possible. It was recognised that books were indispensable for progress, and a proper study of any subject would not be possible without knowledge of the literature published on it. A catalogue of books was displayed

<sup>10</sup> *New Cambridge Modern History*, Vol. I, p. 465.

at the Leipzig Fair in 1594, illustrated books on machine construction appeared in 1612, and the first daily, the *Leipziger Zeitung*, began publication in 1660. The universities were traditional in their outlook, but their number increased considerably, organised bodies of men received charters from their governments to carry on scientific research. The Royal Society of London was established in 1662, the Academy of Sciences in France in 1666. Scientific journals began to be published. The reading of books was naturally limited to the educated classes, but it became a habit among them, and ideas could gain fairly wide publicity within a short time.

One of the first results of the study of the science of antiquity, which is considered symbolic of the new era of science, was the theory of Copernicus (1473-1543) that the universe had the sun at its centre, not the earth, that the earth revolved round the sun, and the moon round the earth, and that the earth rotated round its axis once in twenty-four hours. This theory was based on deduction and commonsense, not on evidence and mathematical demonstration. It was rejected by Tycho Brahe (1546-1601), whose great contribution to the science of astronomy was the setting up of a well-equipped observatory, with accurate instruments. With the help of these he made observations and discoveries, and placed the knowledge of the heavens on a sound scientific basis. His observations helped Kepler (1571-1630) to formulate his theory of the motion of the heavenly bodies in elliptical orbits, and to substantiate mathematically one aspect of the Copernican view of the universe. It was, however, Galileo (1564-1643) who finally completed and confirmed the Copernican theory. Galileo was the first to use the modern scientific method in its fullness, and his study of mechanics was so fruitful and stimulating that he is regarded as the father of that science. He was also the first to study gases, the first to weigh air and probably the first to produce a vacuum. To William Gilbert (1540-1603) and Simon Stevinus (1548-1620) we owe a number of books which laid the foundation of experimental science.

A science whose progress kept pace with the development of astronomy was biology, specially human anatomy. Leonardo da Vinci (1452-1519), a versatile genius with an extraordinary



vision, made a close study of the human body for purposes of art. Andreas Vesalius (1514-1564) was an anatomist, and he published his epoch-making work, *De Fabrica Humani Corporis* — Concerning the Structure of the Human Body — in 1543. William Harvey (1578-1657) discovered the circulation of the blood and defined the function of the heart. He was able to do so because the science of hydrostatics had already been established and Simon Stevinus had described the working of a pump. A microscope with two lenses was invented in 1590, and Leeuwenhoek (1632-1723) saw and described blood corpuscles, spermatozoa and bacteria. He also published drawings of these.

Mathematics was also fast developing, and with the invention of logarithms by John Napier (1550-1617) early in the seventeenth century, there were methods ready to hand for science to use as soon as it was in a position to do so. Newton (1642-1727) and Leibnitz (1646-1716) share the honour of inventing the calculus, and Descartes (1596-1650) revolutionised geometry. Newton stands out among the mathematicians and the scientists of this period for having formulated the three laws of motion, and the law of gravity, for his theory of colours and for his gift of precise expression. In the study of light, Huyghen's (1629-1695) wave theory, propounded in 1690, was a contribution of enduring importance.

During the eighteenth century, scientists concentrated on laboratory techniques and on the learning of facts. But the first steps were taken towards the development of a science of electricity.

#### IV

The changes that took place in Europe during this period have been traced by Francis Bacon to printing, gun powder and the use of the magnet. The basic inventions or discoveries in each case were made in an earlier period; now they were exploited to the fullest extent possible. It was one of the major changes in the period of the Renaissance that the practical arts came to be regarded with respect. Money was more important than it had been before, but men of intelligence and ambition devoted their energies to the study of the techniques of spinning,

weaving, pottery, glass-making and, above all, to mining and metallurgy, which served more than other industries to provide wealth and power. Two books, the *Pyrotechnica* of Birninguccio (1480-1539) and *De Re Metallica* of George Baur or Agricola (1490-1555) are characteristic of the Renaissance outlook. The former describes the metal, glass-working and chemical industries, the latter, which is considered one of the finest technical treatises ever written, describes not only minerals and metals, but also the practice and even the economics of mining.<sup>11</sup> It is now, therefore, that we can say that skill becomes the instrument, and gradually merges into the technique of scientific production. In Asia, the skills survived as skills, but did not lead on to commercially organised industries. When the English envoy, Sir Thomas Roe, visited the court of the Emperor Jehangir, he brought with him, among other presents, a carriage. The emperor was filled with admiration for its craftsmanship. The workmen attached to the court took up the challenge, and within a short time produced an exact copy. Indian textiles were highly prized in England, and might have defied competition if the skills of the textile workers had been converted by organisation into a large-scale industry. This was not done, and the industrial revolution of Europe, aided by political power, proved fatal to the skills, not only in India but all Asia.

The manufacture of paper and the development of printing have already been mentioned. They provided the under-carriage for European civilisation. Gun powder changed the whole character of warfare. Cannon are mentioned in records of the fourteenth century. The Turks used heavy cannon, firing stone balls, during the siege of Constantinople in 1453, and Babar made excellent tactical use of his artillery in India. The advancement of the techniques of metal casting enabled improvements in the manufacture and the efficiency of the cannon and, on the other hand, imaginative generals experimented in different ways of employing this arm in sieges and on the battle-field. Guns, distinguished from cannon in that they were portable, were invented about the same time, and came into general use about the middle of the fifteenth century. The first form of the gun was the arquebus, which

<sup>11</sup> Bernal, *op. cit.*, pp. 261 and 269.

was later displaced by the musket. The match-lock, the wheel-lock, the flint-lock, all invented during this period, represent different mechanisms for firing the cartridge. The earliest cartridges were paper bags holding gun powder and shot, and no substantial improvement was made in them till the percussion principle came to be adopted, early in the nineteenth century. Muzzle-loading and breech-loading were both in use. Along with other improvements, the weight of the gun was reduced and the stock was made so as to fit into the hollow between the right arm and the breast. For cannon, stone balls were used till the seventeenth century.

Success in warfare brought territory, power and prestige to rulers, and the supply of armaments brought wealth to industry. This provided a great stimulus to metallurgy, and indirectly to the mining and chemical industries. The dearth of iron, which was a handicap for all industries, was rapidly reduced. Then the shortage of wood and charcoal became a bottleneck. But when, in the sixteenth century, the scarcity and consequent high price of wood began to make smelting uneconomic, coal began to be used more and more. Its production increased considerably, and more technical effort began to be put into mining. Deep mines are easily flooded. Means were, therefore, devised for improving pumps, and Newcomen's engine was among the first steam-powered machines. Wooden rails began to be used for the trucks in which coal was taken out of the mines. As we shall see later, the needs of the mining industry provided one of the major incentives for the invention of steam-powered machinery.

We have already mentioned the discovery of the American continents. The compass enabled daring seamen to perform feats of navigation, to explore the Arctic regions, and to circumnavigate the world. Cartography developed because of these achievements and the whole world could be mapped out and so divided by longitudes and latitudes that locations even on the high seas could be given exactly.

Science was being ably seconded by skill. Galileo invented the simple, Newton the reflecting, telescope, von Guericke (1602-1686) made the first pump and demonstrated the power of the vacuum. The first microscope was made in Holland in 1590. Torricelli (1608-1647) made the first mercury barometer.

During the second half of the seventeenth century, instrument-makers of fine and accurate craftsmanship could be found in every great European town, and indispensable measuring instruments, the Vernier scale (1631) and the micrometer (1638) had already been invented. Till about 1660 clocks showed an error of 20 minutes a day. Huyghen's use of the pendulum and Hooke's invention of the balance spring made clocks much more accurate, and when methods of compensation had been discovered, chronometers could be made which did not gain or lose more than a minute or two per month. In 1702, Thomas Newcomen produced a steam-engine that proved useful for pumping water from the coal-pits, and his design was the ground-work for the steam-engine invented by Watt in 1769. Some of the interesting inventions of this period are matches (1504), thermometers with alcohol, thermometers with mercury (1714), and pencils (1660). It is an indication of the significance acquired by inventions that a Law of Patents was made in England in 1623.

## CHAPTER IX

### A CENTURY OF REVOLUTIONS (1750-1850)

#### I

THE western world of today is the product of several political revolutions and of an economic revolution, all of which took place between 1750 and 1850. For the rest of the world also, which has been deeply influenced by the events and the political and economic policies of the western nations, the revolutions of this century have proved of decisive importance. We cannot, of course, foretell the future, but so far as the world today is concerned, this century is perhaps the most significant in history. Within it fall the American, the French, two European revolutions (1830 and 1848) and the industrial revolution which changed the character not only of economic but of political, social and personal life. Within it fall the achievements of Napoleon, Goethe, Beethoven, and of poets, philosophers, politicians, scientists and inventors, which together surpass the work of preceding and succeeding generations.

The political history of this period in Europe begins with the Seven Years' War (1756-1763). In the colonies, the main conflict was between France and Great Britain, in which the political and military power of the French in North America and India was destroyed. The French took revenge for their losses when differences arose between Great Britain and the American colonies and contributed materially to the success of the Americans in their War of Independence.

This war itself was a direct result of the Seven Years' War. The British Government realised to what extent its responsibilities had increased, and how necessary it was to raise revenue in the colonies to meet the growing military and administrative expenditure. The colonies organised constitutional opposition to the laws made by the British government. The British Parliament asserted its right to make such laws. Opinion against such legislation was mobilised in the colonies, and both sides drifted into direct opposition. Military clashes developed into the War of Independence (1775-1783).

A Declaration of Independence, drafted by Thomas Jefferson, was approved by Congress on 4 July 1776, and on 15 November 1777, Articles of Confederation, affirming the perpetual union of the colonial states and giving to the Confederation the name of the United States of America, were approved by the Congress and sent to the different states of the colony for ratification. France recognised the United States by making treaties of commerce and alliance (6 February 1778), and Spain joined the war against Great Britain a year later. Great Britain realised the danger of continuing a war which could lead to the loss of both territory and trade and, after the surrender of Cornwallis at Yorktown (19 October 1781), decided to make peace. A treaty was signed at Paris on 3 September 1783, by which the independence of the United States of America was recognised, and peace and commercial relations were restored. A Constitutional Convention, meeting at Philadelphia in May 1787, drafted and approved a Constitution, and resolved that it should become operative when accepted by nine of the thirteen states. The ratification by the states, which were not of one mind as regards the distribution of powers between the federation and the states, could be completed only in June 1788.

The revolution in France began with the meeting of the Estates-General on 5 May, 1789. This was an assembly representing the three different "statuses" or "estates" of noblemen, clergymen and townsmen, and had not met since 1614. It was now summoned because the state was bankrupt, but once it had met, it provided the Third Estate, the middle class of the towns, the long-awaited opportunity to assert itself. On 17 June, 1789, the Third Estate declared itself the National Assembly, and when it was learnt that troops had been ordered to Paris, National Guards, consisting of middle class people, were formed in Paris and other cities. The Bastille, the state prison of Paris and the symbol of irresponsible royal authority, was stormed and destroyed on the 14 July, 1789 and the Declaration of the Rights of Man and the Citizen was approved on the 26 August. Both these events had a profound effect on the whole of Europe. The National Assembly, now calling itself the Legislative Assembly, carried through a series of reforms, confiscated the lands belonging to the Church, and



by the Civil Constitution of the Clergy (12 July, 1790) made all priests salaried officials of the state. This created a deep rift among the clergy and among the people, and was one of the main reasons for the king, Louis XVIII's, unsuccessful attempt to escape out of France (20 June, 1791). The situation made war unavoidable, and the war made the revolutionaries bitter and hysterical. France was formally declared a Republic on 22 September, 1792, and two months later a general offer of assistance was made to all peoples desiring to be free from the despotism of kings. Louis was executed on 15 January, 1793, after a short trial.

The initial successes of the revolutionary armies were followed by defeats, and there was a serious revolt among the peasants in south-western France. Extreme measures seemed necessary. The First Committee of Public Safety was formed on 6 April, 1793, and given dictatorial authority. This was the beginning of the Terror, which lasted for about two years. But by the end of 1793, the tide of war had turned in favour of the French. The revolutionaries who believed in killing their opponents killed each other off, and by the middle of May 1795, the hysteria was over and peace treaties had been signed with Prussia, Holland and Spain.

Now followed a period when the achievements of the revolution had to be safeguarded, and it brought to the forefront an artillery officer, of Corsican birth, Napoleon Bonaparte, whose personality was to dominate France and Europe for twenty years. He first won fame as the commander of the French armies in Italy in 1796, and then for his spectacular, if ultimately unsuccessful invasion of Egypt. He captured power soon after his return from Egypt, and ruled France as First Consul from November 1799, till May 1804, and as Emperor till April 1814. He was forced to abdicate and was exiled to the island of Elba, but returned from there on 1 March, 1815, and ruled for what are known as the Hundred Days, till his final defeat at Waterloo on 18 June, 1815. He was then sent to the remote island of St. Helena, where he died in 1821.

Napoleon is recognised as one of the very greatest military geniuses the world has produced; his achievements as an administrator and legislator are no less dazzling than his

military exploits. He was, in fact, the personification of the most dynamic tendencies of the French Revolution. He believed that there was a whole world to be set in order, and his plans and visions reveal an imagination such as no political ruler ever possessed. He remade Europe in accordance with what seemed to him reasonable or advantageous. The unification of Germany became possible because he forced the Emperor of Austria to give up his title of Holy Roman Emperor, and reduced the number of German states from over seven hundred to thirty-nine. His domination and his exactions raised the peoples of Europe against him, but wherever he exercised power he set up an example of efficient government. His whole career fulfilled the prophecy Goethe made when he heard of the first success of the revolutionary French armies in 1792: "From here and today there opens a new era in the history of the world."

Napoleon's foreign policy aimed at making France and himself the dominating power in Europe, and for this purpose he defeated and humbled Austria and Prussia, formed the Confederation of the Rhine, and carved out the Grand Duchy of Warsaw. But he realised that success would depend ultimately on the destruction of British power and the overawing or subjugation of Russia. The attack on Egypt, the planned invasion of England, the Continental Blockade (decreed from Berlin in 1806) are illuminating studies in political, military and economic strategy. His invasion of Russia in 1812 was a desperate venture on which everything was staked and lost. But he could say that he was defeated by circumstances rather than the superior wisdom of his opponents.

After Napoleon's abdication in 1814, the powers allied against him assembled at the Congress of Vienna to decide what should be done. The idea, generally accepted at the Congress, that in future differences between states should be settled by consultation was a real step forward. But in practice it came to mean interference in the affairs of states in order to maintain the rights of the rulers and to suppress all movements for political reform. It was because of objection in principle to interference in the internal affairs of states that Great Britain declined to participate in the Congress of Verona (1822). This Congress had been summoned to deal with a

popular revolt against King Ferdinand of Spain, and the British Foreign Secretary, Canning, as well as Monroe, President of the United States, felt that this might lead to intervention in the Spanish colonies in America. These had already revolted, Paraguay and Venezuela declaring their independence in 1811, Rio de la Plata in 1816, Chile in 1818, Peru and Mexico in 1821, Brazil in 1822. The provinces of Central America revolted later, in 1823-25. President Monroe enunciated the policy that became known as the Monroe Doctrine. The American continents were to be regarded henceforth as free and independent. Americans would not meddle in European politics and any interference by a European power in the affairs of any country on the American continents would be regarded as an unfriendly act by the United States.

This did not, however, simplify international relations in Europe. France was suspected of aggressive intentions. Russia was a spirit that had been raised to save Europe from Napoleon, and there was a general fear that she would continue her expansion westwards. Prussia was looked upon as the military and diplomatic bulwark against France in the west and Russia in the east. Austria was not lacking in expansionist tendencies, and feared that Russia would take away all that could be taken in south-eastern Europe. Peace depended entirely on a timely adjustment of demands and interests.

The peoples were not supposed to be concerned in these adjustments. The Austrian Netherlands (Belgium), following the example of the French, had revolted against the emperor. The Congress of Vienna decided to unite Holland and Belgium in order to strengthen them against a possible attack by France, and placed them under the rule of one prince. In 1830, the French deposed their king, Charles X, and this revolution stimulated similar movements elsewhere. Belgium separated from Holland, there were widespread revolts in Italy, and Joseph Mazzini (1805-1872) gave a powerful literary and idealistic form to the movement for Italian independence. There was deep unrest in many parts of Germany, and it was followed by repressive measures. The Poles rose in revolt against Russian domination and expelled Russian garrisons, but their freedom movement was soon suppressed. There was a revolution in France again in 1848, and it was the signal for

revolutions in Germany, the Austrian Empire and Italy. These revolutions revealed, on the one hand, that the existing governments were not acceptable to the people and acted as a dead weight. They also showed, on the other hand, that the romantic ideals of nationalism that had become current would only replace one type of problem by another. Internal developments in central Europe and Italy henceforth enlarged national into international questions.

The expansionist tendencies of Russia and Austria created what has been called the Eastern Question, the question of dividing up the declining Ottoman Empire among the European nations. At the beginning of the present period (1765-67), we find Russian agents at work in Greece, Crete, Bosnia, Montenegro, inciting the people against the Turkish government. The treaty of Kutschuk-Kainardji (1774) is a typical example of imperialist methods. The Sultan had to promise that he would treat his Christian subjects better, to grant the right of pilgrimage, to protect the Christian religion and its churches, to open the Empire to Russian trade, with all the advantages available to the most favoured nation, to allow Russia to have consuls and vice-consuls in any towns she thought fit, and diplomatic representation at the Court. Russian aggressions continued in spite of treaties of peace, and it was only the jealousy or the self-interest of other powers that prevented her from going to extremes.

In Persia, the decline of the Safavi dynasty was followed by disorder and conflicts among semi-barbarous chieftains. Nadir Shah (1736-1747) established a crude sort of military rule, and carried away a lot of wealth from north India, along with the Peacock Throne of the Emperor Shah Jahan, when he invaded the country and sacked Delhi (1738-39). There was anarchy again after his assassination, and by the time the Qachar dynasty established itself towards the end of the eighteenth century, Persia had become a pawn in the imperialist policies of Russia, Great Britain and France. The interest of the French was temporary, a part of Napoleon's scheme of expansion. The Russians seized the Persian territories north and south of the Caucasus, advancing up to Tabriz (1825-28), while the British made treaties to advance their commercial interests and secure their possessions in India.

British interest in India began with the establishment of the East India Company in 1600, and with attempts to secure concessions, monopolies and trading rights. There was not much of success in this till 1715, when exemption from customs duties and other concessions were secured. The disintegration of the Moghal Empire gave both the British and the French East India Company's officers opportunities to take sides in local and provincial intrigues, and make them a means of establishing their position not only commercially but politically and territorially. The decisive factor was the European superiority in military science. From 1748 to 1763, the French and British fought each other, and ultimately the British were victorious because of their naval superiority. They had now no European rivals in India and could intrigue and fight for their advantage with single-mindedness.

The conflict with the French, which began in south India, spread also to Bengal, where the condition of the government, which had been bad enough before, became very much worse because of the interference, the exactions and dishonest methods of the East India Company's officers and private traders. Mir Qasim's attempt to stem the rot failed, and after his defeat at the battle of Buxar (1764), the Company's officers could do what they liked. The *diwani* (revenue administration) of Bihar and Bengal was taken over in 1765, and these territories were mercilessly plundered and exploited till the appointment of Warren Hastings as Governor in 1772. Warren Hastings fought the Marhattas (1778-1782) and Haidar Ali, who had seized the government of Mysore (1761) and was a power to be reckoned with. Ultimately, because of the conflicts between the Marhattas, Mysore and Hyderabad, the British were able to break the power of the Marhattas, to conquer Mysore and reduce Hyderabad to a moral subjection far worse than military conquest. By a system of Subsidiary Alliances, introduced by Lord Wellesley (1798-1805), it was made impossible for any Indian Prince to remain independent or even aloof, and by 1818 almost the whole of India south of the Sutlej was directly or indirectly under British rule. Ceylon had become a Crown Colony in 1798, a war with Nepal (1814-1816) yielded the present Kumaon Division, Singapore was occupied in 1819 and wars with Burma (1824 and 1853) gave the British

possession of Assam and the whole eastern coast of the Bay of Bengal. Sind was annexed in 1843, and the Punjab, after two wars, in 1849. In 1857, a movement for setting the country free resolved itself prematurely into ill-organised military encounters, causing bloodshed, bitterness and misery, and the Indian territories came directly under the Crown and Parliament in 1858.

It took the British just a hundred years to appreciate fully the consequences of leaving the commercial, political and administrative policies of their Indian possession in the hands of a private trading company. The Regulating Act of 1774, which was the first attempt to introduce regular procedure in the administration, was accepted by the Company because, though its servants in India and its Directors in Great Britain were amassing wealth, the Company itself was nearly bankrupt. Pitt's India Bill of 1784 was the result of a compromise between the Cabinet and the Directors. The material change in policy was due not so much to legislation as to the social status and personal influence of the Governors-General, which gave to the administration in India a certain measure of independence. The abolition of the East India Company's monopoly of Indian trade in 1813, however, made this arrangement entirely irrational. It was maintained because it was supposed to work. The events of 1857-58 dispelled this illusion.

## II

The revolt against the Roman Catholic Church in the sixteenth century was not a revolt against the idea or the ideal of a church. For a time both Protestants and Catholics continued to believe in the possibility of a church civilisation in which every sphere of life would be regulated according to the law of God.<sup>1</sup> But the belief was not strong enough to mould all the new social and economic tendencies, and could not, therefore, take any organisational form. With this belief, the hope of integrating all the aspects of life through the authority of dogma also faded. But the dethronement of the church and of institutional religion did not leave a vacuum. What happened was that belief disintegrated into beliefs, that the

<sup>1</sup> Tawney, *op. cit.*, p. 32.



need for a concept of the universal order was displaced by the desire to discover the nature of the universe and the meaning of order. Whoever was moved by this desire could set out on his own voyage of discovery. Whatever he claimed to have discovered could be accepted or rejected; the test was logic, evidence, intellectual soundness or emotional appeal.

Two lines of thought had already been marked out in the seventeenth century, one by Descartes and the other by the Deists. Descartes was one of the founders of scientific philosophy, one of the first representatives of the attitude that knowledge is not only essential but the proof of man's very existence. Therefore, in dealing with human affairs, we must think as clearly and objectively as possible. For this reason, Descartes' outlook was secular, and he saw no reason why differences of religious views should interfere with a person's participation in public life. Deism showed the influence of scientific awakening in another form. As a movement it began in England, where a long line of rationalists had attempted to end religious controversy, and to give religion a sound ethical instead of a dogmatic basis. Newton's discoveries gave a strong impetus to the tendency to strip religion of all that reason could not accept or society make use of. Christianity was thus reduced to belief in God and in the existence of a natural moral law. Some writers, applying the standards of their times to historic Christianity, showed in what ways it was irrational. Belief in miracles was one of the main points of attack. Voltaire (1694-1778) made deism into a rational religion, and used it as a weapon not only against the Roman Catholic Church but all forms of Christianity. Rousseau (1712-1778) would also be described as a deist, but his deism grew out of a mystical conception of man, his growth and his destiny. In Germany, Reimarus (1694-1768) and Lessing (1729-1781) were outspoken deists and promoters of religious tolerance, and Lessing put forward a theory of progressive religious development. Deism in its earlier forms could not serve either as a philosophy or as a theology. But so far as it emphasised the ethical and social aspects of religion, and insisted that religious and scientific thought and intellectual and moral needs should be brought into harmony, it had a lasting influence.

It is not possible here to describe the views of individual thinkers and writers, and these views could not be considered separately and by themselves under the category of belief. We can only take note of features which so many thinkers had in common and which exercised so much influence that they can be regarded as new forms of belief. Outstanding among these was the belief in reason, which many enthusiasts now looked upon as something independent, a source of knowledge capable of replacing all the dogmas and the precepts which religion provided for human guidance. Belief in reason became so intense that the half century ending with the French Revolution has been called the Age of Reason. It was also called the Age of Enlightenment. The belief in original sin, which had such a deep influence in shaping the medieval Christian outlook on life is now transferred from man to society. It was churches, dogmas, traditions, customs that were the origin of evil; man himself was born pure and would remain pure if he were not infected by the evils of society and civilisation. Rousseau placed the state of nature in sharp contrast against civilised society, and though he was aware that nature did not provide for man all that he needed, civilised society did not rise in his esteem. The resultant was an ideal of simplicity, of naturalness, of a life lived according to the desires of the heart. As a member of society Rousseau was in some ways contemptible and in every way disagreeable. But he was a mystic, and within himself he could compose pictures of fascinating beauty, for the painting of which his style was a sensitive and faithful medium. More than any of his contemporaries he gave to the Age of Reason and Enlightenment the vision of a new life, and to educators of the future a new idea of their function.

If man was the embodiment of reason and could mould civilisation in accordance with his idea of the good, it was inconceivable that he should have no rights. The Preamble to the Constitution of the United States and the Declaration of the Rights of Man and of the Citizen provided comprehensive definitions of these rights. The people are collectively sovereign, they are all equal as individuals and entitled to participate in law-making through their elected representatives. They have the right to believe and practise their religion, to express

their views in speech and writing, to assemble for lawful purposes, to keep and dispose of their property. There were those who, like Edmund Burke (1729-1797), thought it wrong to talk as if men had the power to create governments and institutions out of nothing, merely by the exercise of presumed rights and liberties. Existing institutions, they said, were the result of generations of effort, and must be regarded with reverence. But such ideas could not stem the rising tide of revolutions, which were the expression, in political form, of the doctrine of natural rights.

The new conception of man is seen in its most significant form in the music of Beethoven (1770-1827) and in the writings of Goethe (1749-1832), above all in his play, "Faust." Beethoven was beyond doubt the greatest of the European composers, not only because of the quality of his music, but because his music reflects the tremendous spiritual struggle that went on within him, the struggle of an artist seeking the highest in his art, and of a man striving to achieve through music something greater than music itself. His fifth symphony is one of the most exalted expressions of inner struggle, of the battle against doom, and of a victory that is eternal. The last of his great compositions, the ninth symphony, reproduces the most significant moods of his life, and ends in an ode to Joy, the ultimate refuge of mankind.

Goethe occupies a unique place in the history of human development. No writer, no student of cultures has had a mind more versatile, more receptive to the most diverse influences, surer in its appreciation of values and more capable of complete identification with them. Kalidas' "Shakuntala" has not been better praised than by him, and in the whole mass of poems written by Muslims in praise of the Prophet Mohammed, there is nothing to compare with the eloquent symbolism of his "Mahomets Gesang." His interest in all the meaningful aspects of life, his power of appraising men and events, his intuitive discernment of the essential in the social changes taking place in his times, the maturity and the soundness of his judgement have no equal. We cannot discuss his writings here, but in his play, "Faust," where the chief character sells his soul to the Devil in return for the promise of the most complete experience of life, is a representation of "Western"

man which is at once the most factual and the most illuminating. For what is most characteristic of western man is his desire to know everything for himself, to experience every variety of emotion for its own sake, without reference to any standard or any judgement other than his own, to determine for himself what he should aspire to become or to achieve.

Reason and Enlightenment, with their optimism, their violence, their supreme confidence in themselves produced a reaction. One form of this was a movement known as Romanticism. Its expressions in literature, art, history, philosophy, religion were so varied that we can only call it a type of sentiment, a particular outlook on life. It comprehends the poetry of Shelley, Keats and Byron, Chateaubriand's interpretation of Christianity, a new attitude of interest in medieval life, laws and institutions, Herder's conception of the people as a spiritual community, with their particular *Volksgeist*<sup>2</sup> and new styles in painting and architecture. The stimulus it gave to literary and cultural activity makes it a movement of great importance.

Among those who deeply influenced the Romantics, specially in Germany, was Spinoza (1632-1677), who lived in an earlier period but whose works became widely known only about a hundred years after his death. Spinoza wrote on politics, ethics, religion, and out of all these he wove a system in which the world as it is, is accepted and a line of thought and action is suggested which brings man, nature and God into complete harmony.

To the age of Reason and Enlightenment belongs also the philosophy of Kant (1724-1804), in which previous philosophical thought is appraised and summed up, and a basis is provided for further intellectual and religious speculation. Kant studied the British philosophers, Locke, Berkeley and Hume; he was an enthusiastic reader of Rousseau. He felt that the analysis of knowledge and experience made by the British philosophers, specially by Hume, reduced experience to unconnected units of sensation. Against this he maintained that experience was always related to a framework of thought; we can say that all our knowledge begins with experience because each experience is related to some other. There is a unity which binds

<sup>2</sup> *Volk* — people, *geist* — spirit, mind, genius.

them together. Kant's own philosophy is a criticism of the faculty of knowledge. He believes that we should not dogmatise or raise doubts which are groundless, but subject the nature of reason itself to a sober investigation. For there are things which it can and things which it cannot do. Physics and mathematics, for instance, are fields in which reason can operate effectively. But there are problems, set by reason itself and unavoidable, such as God, freedom, immortality, which reason cannot solve. They belong to the realm of metaphysics. Kant examined and rejected all the proofs advanced in regard to the existence of God, but it followed from the argument that the existence of God could not be disproved either. We have also to admit, according to him, that freedom and the moral law exist. Without them, ordered living would be impossible. In this way, Kant undermined materialism and atheism and made room for faith, without identifying himself with any particular religious doctrine.

The philosophy of Kant became a source from which others drew both inspiration and ideas, even if they did not accept his system as a whole. To the direct line of succession belong those who are known as the Idealists, but he gave both confidence and direction to those who, like Schleiermacher (1768-1834), attempted to harmonise religious doctrine and scientific knowledge. Even Schopenhauer (1788-1860), the pessimist, claims to have reverted to the original teachings of Kant as against the modifications and interpretations of his later followers. Among the Idealists, the thinker who exercised the greatest influence was Hegel (1770-1831). He had a versatile mind, and was able to combine history, logic, art and religion into a system of philosophy where inner experience and external reality become an organic whole and lead to the Absolute Idea, or God. One of his most important contributions is the conception of development through the three stages of thesis, antithesis and synthesis. If we take existing facts as the "thesis," we see that the course of events reveals their incompleteness, and leads to the "antithesis," with a process of reconciliation that produces a "synthesis."

Other systems of thought, which in some ways or for some time operated as beliefs are Utilitarianism, Positivism, Liberalism, Socialism and Communism.

The Utilitarians denied the value of such principles as natural law and natural right, and such assumptions as a Social Contract. They held that all men desire pleasure and dislike pain, that the value of a thing is determined by its utility, and that peace, order and contentment would be attained if the greatest good of the greatest number<sup>3</sup> were accepted as the guiding principle in morals and in legislation. The Utilitarians shared all the confidence and the hope of the Age of Reason, and their standard had some value when applied to the reform of a legal system burdened with customs and technicalities, such as that of Great Britain in the eighteenth century. But Utilitarianism could not be made into a philosophy or a system of belief. It evaporated in the attempts made to give it substance and form.

The same could be said of Liberalism. All liberals professed to be progressive, and their aim in all spheres of life was to remove hindrances and restraints. In matters of belief they were free-thinkers, considering the individual the best judge, so long as his actions did not deny to others the freedom he demanded for himself. In matters of political and social organisation they had the same attitude, their desire being that the policy of the state should confer the largest amount of benefit with the least interference, use of compulsion and authority. But like Utilitarianism, Liberalism could not be given a definite form. Its history is the record of positions taken up on political, economic and social issues by those who called themselves liberals.

One aspect of liberalism was its insistence on the freedom of the individual, and here it had, for about a century, the support of economic theory. The school of Physiocrats in France started from the assumption that all men and all the human powers are governed by moral and physical laws instituted by the Supreme Being. The application of these laws must give satisfaction at the same time to the interests of individuals and the state. A generation later, the theories of the Physiocrats were developed in England by Adam Smith, whose epoch-making work, *The Wealth of Nations*, was published in 1776. Ricardo (1772-1823) and Malthus (1766-1834), who

<sup>3</sup> This phrase was first used by Beccaria (1738-94) in his book, *On Crimes and Punishments*.



derived their philosophical position from Adam Smith, believed firmly in a natural, invariable law, and Ricardo had as strong a faith as any of the Physiocrats in a divine, pre-established harmony between the public and the individual interest. The definition of this individual interest, which had a divine sanction, was comprehended in six freedoms, freedom from government interference, freedom from monopolies, concessions and privileges, freedom to own and dispose of property, freedom of contract between employer and labourer, between seller and buyer, freedom of movement and domicile, freedom of association. In economic life, these freedoms had meaning and value only for the middle class of manufacturers and businessmen and for the landowners. They were the means of enabling employers to do what they liked, to make women and children work in factories and mines, or to uproot families of farmers and use hired labour instead. The pace of industrialisation would have been considerably slowed down but for the belief that these freedoms were given to the individual by Providence.

Of far lesser significance socially but perhaps of greater importance intellectually was the philosophy of Positivism.

Its founder, Auguste Comte (1798-1857), propounded the Law of the Three States, and in accordance with the characteristic features of the Three States, a Classification of the Sciences. The Law of the Three States is the division of human history into three stages, the earliest or lowest being the theological. This is followed by the metaphysical, with the scientific coming as the height of intellectual and industrial achievement. The Classification of the Sciences places mathematics and astronomy at the lowest level, because they are abstract, and biology and sociology at the top, because they deal with man and with society. These ideas were elaborated in the positivist system of thought. This system exercised a deep influence on the beliefs of the nineteenth century, because it emphasised the physical and material aspects of the social sciences and challenged the value of religion, metaphysics and everything concerned with the supernatural.

While positivism looked at science and industry as human achievement inspiring faith and hope, there were two other movements, Socialism and Communism, which judged life

according to other standards. Both Socialism and Communism have a long history as endeavours to organise production, distribution and consumption of goods on lines more in keeping with the ideals of justice and philanthropy. Socialism in modern history begins with St. Simon (1760-1825), a visionary who dreamed of a new order based on love and justice and purged of all selfish competition. Fourier (1772-1837), Robert Owen (1771-1858) and Louis Blanc (1813-1882) brought Socialism closer to reality by proposing schemes that would remove competition and create an economic and social order based on moral principles. But these schemes were not practical enough to succeed, or to succeed over a sufficiently long period. Communism was placed before the European world as a precise, dogmatic, fighting system in the Manifesto published by a secret society known as the Communist League in January 1848.

"The history of all hitherto existing society is the history of class struggle. . . .

The modern bourgeois society that has sprouted from the ruins of feudal society has not done away with class antagonism. It has but established new classes, new conditions of oppression, new forms of struggle in place of the old ones. . . .

In one word, for exploitation veiled by religious and political illusions, it has substituted naked, shameless, direct, brutal exploitation. . . .

Modern industry has converted the little workshop of the patriarchal master into the great factory of the individual capitalist. Masses of labourers, crowded into the factory, are organised like soldiers. . . . They are daily and hourly enslaved by the machine. . . . The more openly this despotism proclaims gain to be its end and aim, the more petty, the more hateful and the more embittering it is. . . .

But with the development of industry the proletariat not only increases in number; it becomes concentrated in masses, its strength grows, and it feels that strength more. . . .

All previous historical movements were movements of minorities, or in the interest of minorities. The proletarian movement is the self-conscious, independent movement of

the immense majority, in the interests of the immense majority....

The proletarians have no country. . . .

National differences and antagonisms between peoples are daily more and more vanishing, owing to the development of the bourgeoisie, to freedom of commerce, to the world market, to uniformity in the mode of production and in the conditions of life corresponding thereto.

The supremacy of the proletariat will cause them to vanish still faster. . . .

The Communists everywhere support every revolutionary movement against the existing social and political order of things. . . .

The Communists disdain to conceal their views and aims. They openly declare that their ends can be attained only by the forcible overthrow of all existing social conditions. Let the ruling classes tremble at a Communistic revolution. The proletarians have nothing to lose but their chains. They have a world to win.

Working men of all countries, unite! "

The theory of class struggle, of the means of production being the determining factor in the organisation of society, of the developments that are to lead inevitably to the final revolution, the victory of the masses and the dictatorship of the proletariat, is known as the theory of historical materialism. As a system of philosophy, communist teaching calls itself dialectic materialism. It is an application to economic and social life of the dialectical method of the German philosopher, Hegel, who believed that human development took place through the interaction of opposites. These, we have seen, he termed Thesis and Antithesis, their interaction resulting in a Synthesis, which in the onward movement of life itself became a new Thesis. The dialectic materialism of the Communists is supposed to provide the answer to all questions, to be logically perfect. But the forecast of events made in the Communist Manifesto has turned out to be wrong in many substantial respects. National differences have not disappeared, the position of the working class has not grown worse, the accumulation of capital in a few hands has not

taken place. The churches and religions have not grown weaker. In the latter half of the eighteenth century, people did become intensely anti-clerical, and even the Roman Catholic Church was so affected by this attitude that in 1773 the Society of Jesus was dissolved. But it was re-established in 1814. The National Assembly of France confiscated the property of the Church, and placed the clergy on the same level as the civil servants. But Napoleon had to come to terms with the Pope in order to reduce the hostility of the Catholics to the Revolution, and the Romantic movement in France deepened religious sentiment. New beliefs did not displace the old, they only created a diversity which made uniformity impossible.

## III

The eighteenth century in Europe, the end of which is marked by the French Revolution, is also known as the age of the Enlightened Despots. Frederick the Great of Prussia, Catherine II of Russia and the Emperor Joseph II of Austria-Hungary are considered the most outstanding and the most typical examples. But it is only in Frederick the Great that we see the fact of power combined with the ideal of service, with a high regard for the rights of his subjects and with a confidence in his own judgement which enabled him to stand alone. He was a despot who could not make his people fully understand his motives, his ideas and his ambitions, but he succeeded in winning their affection, their loyalty and their admiration. It cannot be said that benevolent despotism succeeded as a type or as a method of government, and the idea that the ruler was the fittest person to lead and guide the people did not survive the French Revolution. Certain traditions and loyalties did, however, survive. They were among the chief reasons for the continuance of monarchies as constitutional monarchies.

The American and French Revolutions impressed very deeply on the minds of people the idea of government according to law and constitution and in the interests of the people. Napoleon created in France the first typical modern government, an agency acting according to reason and expediency, not hampered by tradition. He drew up codes of civil, commercial and penal laws, which served as models for several countries

of continental Europe. The government of the United States was a complete example of democracy. It was to many a source of inspiration, but distance as well as difference of circumstances and historical development prevented it from becoming the model for European nations during this period. France had a monarchy with defined powers and a constitution from 1815 to 1848. But till 1830 the powers of the king were extensive enough to upset the working of the constitutional machinery. There was a legislature consisting of two chambers, and the government was carried on by a ministry representing the majority in the legislature. The franchise was very limited. The constitution framed by the revolutionary National Assembly in 1791 had fixed such a high property qualification that only about 50,000 people in the whole of France had the right to vote. The franchise was extended later to 100,000 in 1815, and to 200,000 in 1830. But even then it included only the upper middle class, and in a legislature representing a small part of the population, the majority could not really represent the views of the people. One of the reasons for the fall of Louis Philippe's government in 1848 was its obstinate resistance to the demand for the extension of the franchise.

Parliamentary government was well established in Great Britain by 1750, but the extent to which the king could control and direct administrative affairs depended in theory as well as fact upon the desire of the king himself. George III (1760-1820) formed a party known as "the King's Friends," and set up a ministry over which he had great influence. Ministers and ministries began to resign in case of an adverse vote in Parliament, but it happened also that members of Parliament holding radically different views joined the same cabinet. They were not responsible to any electorate; their constituencies did not represent the actual distribution of the population. There were such extreme cases as a large industrial town having no representation, and a member being "elected" from a constituency that had few or no inhabitants. Public life was the public exercise of personal influence.

The Federal and State constitutions of the United States of America were originally, like all constitutions, rough drafts incorporating political principles that were considered fundamental. They had to be amended, as ideas changed or practical

difficulties arose. Authority of all kinds was subject to checks and balances; it was believed that unless the executive, the legislative and the judicial powers were separated, there would be no freedom. The federal constitution divided powers between the Federation and the States, between a President having sole executive authority, elected for 4 years, a Congress consisting of two houses, one representing the people and the other the States, exercising legislative powers, and a Supreme Court having final authority in questions concerning the interpretation of the constitution. A strict division of the different functions of government is impossible to maintain, and the constitutional history of the United States may be summarised as an attempt to maintain the original separation of powers while providing the opportunities and creating the conventions for necessary coordination and cooperation between the administrative and legislative authority, and bringing legislation and the exercise of authority more and more in correspondence with public opinion.

One of the most significant features of political life that appears during this period, which can be traced very largely to the American and French Revolutions, was that government acts and policies were subjected to constant criticism, and public opinion could be mobilised in such ways that governments had to yield to it. What was formerly the concern of individual politicians or political groups now becomes, or is made to become the interest of the mass of the people. Newspapers and pamphlets, public meetings, demonstrations, armed risings now become the means of the self-assertion of the people. The particular means used depend on the measures of resistance the government takes. In the United States the use of the vote for and against a person, a party or a policy was usually decisive from the very beginning. In countries where the electorate could not influence government directly enough or soon enough, other means became necessary. In England, till the Reform of 1832, the danger of armed risings was usually enough to force a change of government or the revision of a policy; in France armed risings were also resorted to. Where the system of government was not representative, armed rising seemed to be the only effective means of expressing the wishes and of gaining acceptance of the demands of the people.



Those who have similar interests or views tend to band themselves together, to form parties. In England, after the revolution of 1688, there were two groups, Tories and Whigs, which were contending for power. They were at first parties of members of Parliament only, and of the relatively small class of nobility, landlords and successful money-makers. As a larger number of people began to take interest in the affairs of government, they became parties representing opinion in the country. But it was only after the end of the Napoleonic wars, when laws which affected the interests and the lives of whole sections of the population, such as the Corn Laws of 1815, began to be passed, that party policies began to be canvassed in the country. The Reform Bill of 1832 was symbolic of the decisive importance of public opinion. It abolished fictitious constituencies, and though it did not introduce a system of representation on the basis of population, and retained property qualifications that seriously limited the franchise, it made the electorate much more effective. Important measures of reform followed, such as the abolition of slavery in the British Colonies (1833), the Factory Act (1833), the New Poor Law (1834), the Municipal Corporation Bill (1835). Working men began to organise themselves, and an agitation for the extension of the suffrage to all adult men, known as the Chartist Movement, was begun. Parties were formed in the United States soon after the Constitution was passed. They did not identify themselves with particular interests and policies even to the extent that the Whigs and the Tories of the eighteenth century did, but their contention for power introduced a system of canvassing the electorate. This canvassing became even more important after 1829, when manhood suffrage was introduced. In France, parties tended to multiply. There were opposing groups like the monarchists and the socialists, but in most cases there were shades of difference that made it difficult to identify them with particular economic or social interests.

In Great Britain and the United States the attitude towards government was determined very largely by the interest of those who benefited from free enterprise in trade and industry. This attitude affected government policy and also the form taken by economic organisation. But already during this

period an opposite interest asserted itself, and demanded legislation for its own advantage. This was the agricultural interest. Manufacturers desired the fullest freedom in order to employ the cheapest labour, to procure the cheapest raw material and to work under the most favourable conditions, and both manufacturers and traders needed free access to the markets. The United States enjoyed the reputation of being the land of both opportunity and free enterprise. Great Britain was the first among the European countries to develop the system of mass production, and the first to acclaim the principle of free trade. This, as Frederick List (1789-1846) showed, was less a matter of intellectual opinion than of national interest, since Great Britain was industrially the most advanced country in Europe, and free trade would perpetuate this supremacy. But in Great Britain landlords and farmers desired to get the highest prices for corn, and their interest militated against the tendency of free trade to lower the cost of labour by lowering the cost of bread. They asked for protection, for prohibition of the import of corn or for such import duties as would keep the price of corn in the country sufficiently high. The use of legislative power for the protection of agricultural interests is well illustrated by the British Corn Law of 1815, which prohibited the import of corn, and was modified with great difficulty in 1828 and 1841. But it was not only agricultural interests that needed protection. Countries with less developed or nascent industries needed to be protected against competition with countries where industries were more developed. The principles of free trade and protection thus came to play a very important part in the formation of political parties. Apart from being economic issues, they also indicated the attitude towards the functions of government, free traders trying to prove that the common interest lay in the government interfering as little as possible in economic and social life, and their opponents insisting that government should use its legislative and administrative power and undertake all the responsibilities necessary in the common interest. The further stages of this conflict and its result in the form of legislation become evident in the next period.

The attitude towards war underwent a revolutionary change, and armies acquired a new significance and a new organisation.

We have seen how the professional army came into existence, and how its administration and armaments were improved. During the French Revolution, when the country was in danger in 1793, we see for the first time the phenomenon of a nation in arms. The system of mass levies or the conscripted army was introduced, all able-bodied citizens being called upon to enlist in the army. This made it possible to have very large armies, and, as in Prussia when Napoleon's domination became unbearable, a sentiment could be created that would not only ensure enlistment of a large percentage of able-bodied citizens, but make these citizens into fairly good soldiers. Even Napoleon's victories, however, do not prove the value of the conscripted as against the professional army, because of the high percentage of those who evade enlistment when the means of enforcing it are not sufficiently effective, and also because conscripts are harder to discipline. In Prussia a system was evolved in which conscription was combined with rigorous training, recruits being first disciplined and kept in active service, then being put on garrison duty, and finally being allowed to return to civilian life, but listed as reserves. This system was elaborated and perfected in Prussia, but most of the other countries retained the system of having professional armies.

Napoleon's tactics gave a new significance to artillery, but the only invention of this period which is of importance is the needle-gun, a far more efficient weapon than the guns fired according to the old methods. The equipment required by the large armies made the manufacture of armaments a matter of great economic significance, and brought war and industry closer together than they had ever been before. The results of this development are even more evident in the succeeding period.

Economic interest acquired a new and permanent significance because of the Industrial Revolution, which was perhaps the most important of the revolutions that took place in the eighteenth and nineteenth centuries. It began in England about the middle of the eighteenth century and advanced slowly and in a rather haphazard way in England and on the European continent. It consisted basically in groups of inventions in the textile and in the iron and steel industries, and in the invention of the steam-engine with a rotary movement by James Watt in 1782. The number and size of the factories increased

considerably, but it was the application of steam-power to production that marks the fundamental change. The first factories using water-driven machinery were erected along the banks of rapid streams, and this limited their expansion. Steam-driven machinery did not suffer from any such drawback. It was not affected by changes of climate, it was regular and controllable, and could be erected at any site that appeared favourable for the transport of raw material and of finished products. But because of the need for coal, industries began to centre round coalfields. Steam-driven machinery and coal thus became the symbols of the Industrial Revolution.

A revolution in agriculture accompanied the revolution in industry. This also began in England, where the movement for enclosing land for sheep-breeding or farming reached its height between 1760 and 1820. The main incentive to the development of agriculture was the need for more food created by the growing urban population, and "the growth of a market economy, the quest for profit, the commercialisation of agriculture quickened scientific discovery." At the same time, animal husbandry developed into a science. Robert Bakewell (1725-1795) was one of the pioneers in this field. Before his time, sheep were valued for their wool, hides and manure. He bred them for meat by careful selection of breeding stock and by inbreeding.<sup>4</sup>

One of the major results of the growth of industry was urbanisation. More and more people were drawn to the towns. If we take English cities as an example, the population of Bristol increased by 1760 from 29,000 to 100,000, of Birmingham, Sheffield and Liverpool from 4,000 to about 50,000, of Manchester from 6,000 to about 45,000. Another result was the growth of a new social class, which acquired wealth through ingenuity, self-reliance and aptitude for business. It was also a class distinguished for lack of sensitiveness and fine scruples. It seized the position and the prestige which had so far been the possession of the nobility, and opened the gateway to democracy.

The Industrial Revolution also created the proletariat, the worker depending entirely upon employment in mine or

<sup>4</sup> Friedlander and Oser, *Economic History of Modern Europe*, pp. 35-37 (Prentice-Hall, Inc., New York, 1953).

factory, while his employment depended upon the fluctuations of the market. Till the Factory Act of 1833 began to be enforced, the condition of women and children working in mines and factories was indescribably wretched, and the crowding of the poor in the slum areas of towns produced conditions in which the family and family morality were undermined.

There was continuous improvement in the means of transport. Roads with hard surfaces were made and passenger services by coach were organised. The invention of the locomotive and the steamship brought the speed of transport into line with industrial development, increasing the rate of distribution and enabling the supply of goods to the most distant markets. A regular trans-Atlantic service of fast sailing ships was organised in 1816; the Peninsular and Oriental Line in 1839 established a regular steamship service between London and Alexandria, which connected with East India Company ships coming from Indian ports up the Red Sea. The first important trans-Atlantic steamship line began operating in 1840. This expanded the area of commercial interests, made the security, if not the monopoly of trade routes essential, and brought into the relationship between nations the spirit of competition which was the driving force in industry and trade.

Communications improved with transport. There had been till now some method or other of conveying letters, documents and parcels by post, but it was different in each country, and sometimes varied from city to city. A penny post had been introduced in London city in 1680, following the institution of a similar postage in Paris by Louis XIV. Postage for other cities depended on the distance and was charged from the receiver. In 1840, Rowland Hill succeeded in persuading the British Government to accept his proposal that postage should be charged by weight and not by distance, that it should be prepaid by the sender affixing postage stamps, and that, for all letters up to a certain weight, there should be a uniform penny postage for the whole country. Other countries soon followed Great Britain's example, and uniform national systems opened the way for international agreements.

If we consider education during this period, we find two forces at work. There is, first, the interest of the rulers and the ruling classes that the poor should remain content with their

lot and the rich become more useful to the state and to industry and trade. The Prussian School Codes of 1763 and 1787 represent the first planned attempt to provide elementary education to the people, with rules regarding the age of compulsory admission, the curriculum, teacher education and inspection. The Code of 1763 gave too much control to the Church; in 1787, elementary education passed almost entirely into the hands of the government. In France, the Church dominated education at all levels till the Revolution, and it did so in the interest both of itself and of the state. In England and the United States, where the "rulers" were the middle classes, elementary education was organised by private religious and philanthropic societies. The controlling force in secondary education was either the state, as in France during and after the Napoleonic period, or the economic interest, as in Great Britain and the United States, where education was considered to have value because it fitted men for business and industry. The universities were watched and suspected in France till the Revolution, and more or less neglected in Great Britain and the United States during this period. In Prussia, on the contrary, the foundation in 1809 of the Frederick-William University in Berlin was an acknowledgment of the idea that the function of the university is to cultivate the mind so that it becomes fully representative of the national character and culture, and to provide intellectual resources, strength and stability to society and the state.

The influences determining the content of education were religion, desire to create contentment, humanism and the requirements of industry. Religion was the interest of the Church or a particular religious community, such as the Quakers or the Methodists, or of those who believed that the moral values necessary to make a man honest and hard-working could only be acquired through religious instruction. Those who established schools for the poor in different parts of Great Britain often provided soup and other nourishment to the very poor children, in the hope of fostering contentment. The influence of humanism appears only in secondary and higher education, in the importance attached to Latin and Greek. In the universities, the study of science, specially of the natural sciences, was taken up only gradually. The ideal



of the French Encyclopaedists to eliminate superstition, persecution, intolerance, to create a society governed by just laws and free from poverty, disease, slavery and war influenced people's minds but not the system of education. This period is, however, also the age of Rousseau, Pestalozzi (1746-1827) and Froebel (1782-1852). Rousseau was the first to emphasise the emotional aspect of human nature and to assert its value. Pestalozzi was among the first to make experiments in methods of education. The spirit with which he opened and conducted his schools and the ideas enshrined in his writings, made a deep impression on his contemporaries and are studied with reverence till today. Froebel was the originator of the Kindergarten, which is based on an ideal of harmony between man and nature, and between the individual and society, and of an unfolding of latent qualities and aptitudes that leads to personal fulfilment.

Scholarship made great advances during this period. There was a renewed interest in the Middle Ages, partly as a reaction to the idealisation of Greek and Roman culture in the Age of Enlightenment. The new spirit of nationalism, symbolised as the *Volksgeist*, prompted the study of the national language, of folklore and of customary law. Sir William Jones initiated the study of Sanskrit, and the relationship between Sanskrit, Greek, Latin and the Germanic languages served as the foundation for the science of philology and opened a vast field of scientific study of languages and races. We have mentioned in the previous section the great importance acquired by the science of economics. Monumental works on history were written and the foundations laid for historical criticism. Grotefend (1775-1853) deciphered the cuneiform script (1802) and Champollion (1790-1832) read the Egyptian hieroglyphs. This made it possible to study the ancient civilisations of Mesopotamia and Egypt.

In the natural sciences, great progress was made. Leyell (1797-1875) put the study of geology on a scientific basis. A new science, palaeontology, was created by the study of fossils. Lavoisier (1743-1794) established the nomenclature now used in chemistry, and showed that it could be ordered in a law of the combination of elements. Following upon his work, the structure and types of molecules began to be determined,

and structural formulae laid down; gases were studied, oxygen, nitrogen and many compounds of carbon and other substances were isolated. Ordinary gases were liquefied. Electricity was considered interesting<sup>5</sup> but had not found any particular use in the early eighteenth century. It had been discovered that it was capable of transmission through metal conductors, and a distinction had been made between conductors and insulators. Towards the end of the eighteenth century, the quantitative study of electricity began, a battery was made by Volta in 1800, the relationship between the electric current and magnetic effects was investigated, and Faraday laid the foundations of electro-magnetism. The first electro-magnet was constructed in 1825, but for reasons mainly social and economic, the electrical industry took about fifty years to develop. From 1800 onwards, it was generally accepted that light was a wave motion, and the velocity of light was measured fairly accurately in 1829.

Greater knowledge was acquired of the human body also. By 1800 it was recognised that it consisted of different kinds of material, such as muscle, membrane, cartilage, etc. and these were called tissues. In 1838-1839, the theory that all living organisms are cells or communities of cells was put forward in a simple form, and later it became clear that in every cell there is an essential living stuff, which was called protoplasm. The process of digestion was first thought to be a sort of combustion in the body. But Liebig (1803-1873) discovered that proteins, carbohydrates and fats were constituent elements of plant and animal tissues. This gave the right direction to further research. The brain was also studied. Bell (1774-1842), in 1820, discovered that the sensory and motor nerves were separate, while in the 1830's Johann Muller discovered the law of specific nerve energies. It was soon found that certain nerves regulated the rate of heart-beat and the flow of blood through the vessels.

The introduction of vaccination marks the first great step in the advancement of public health. Small-pox was the most universal and dreaded of diseases before the nineteenth century.

<sup>5</sup> After the invention of the Leyden jar, the king of France organised the electrification of his whole brigade of guards, who were made to jump in unison by shocks from batteries of Leyden jars.

The Turks seem to have begun the practice of inoculation by infecting children with matter from a very mild case of small-pox. The practice was brought to England in the early eighteenth century. In 1798, Edward Jenner discovered that an attack of cow-pox protected against small-pox, and soon the practice of vaccination was introduced.<sup>6</sup> This was the first step in the remarkable progress made in inoculation against disease.

## IV

The Industrial Revolution, which began about the middle of the eighteenth century, was the result of continuous application of skill and inventiveness to methods for the increase in production. It was not a revolution in the sense of being a sudden and unexpected appearance of an inventive faculty or of an organising ability. Men had exercised their minds for the improvement of production techniques before also, and we have seen that the factory system came into being before the invention of machines and the application of mass production processes. But there was now an urge to produce as much as possible because of the new opportunities of procuring raw material, marketing goods and making profits. In fact, new markets came first, inventions followed.<sup>7</sup> The urge to make the fullest use of opportunities made existing disadvantages obvious. One of these was shortage of fuel, another the shortage or undependability of water-power. The search for a new type of fuel and the desire to have it available in ever-increasing quantities led to a number of inventions and technical devices. The limited area in which water-power could be utilised, as well as the difficulty of increasing the power itself even where it could be had, induced the search for a new source of power. We have seen that the new fuel that came more and more into use was coke and coal. The existing coal mines had to be exploited fully and new ores discovered. As mines had grown deeper, the problem of devising a means for pumping water out of them had become more acute. The first application of steam-power was made in pumps. Other inventions and devices were also the result of a continuous endeavour to increase the

<sup>6</sup> Taylor, *op. cit.*, p. 197.

<sup>7</sup> *History of Technology*, Vol. IV, p. 148.

output of the coal mine. The first rails, of wood and then of iron, were laid to facilitate haulage of coal, the first locomotive was used for pulling loaded wagons of coal. The utilisation of coal led to another series of improvements and inventions. Coal as a fuel and steam as a source of power had to compete against charcoal and water-power. As furnaces and smelting processes, where coke and coal were used as fuel, improved, wood and charcoal were eliminated, and as the steam-engine proved its superiority, it began to be adopted instead of the old sources of power. Improvement of the steam-engine depended on the production of better iron, on precise workmanship, on greater knowledge of the fundamental sciences of chemistry and physics. Technological needs stimulated scientific study. We find, therefore, laboratory techniques being evolved and precision tools and instruments being placed at the service of the inventor.

We must not assume, however, that things happened by themselves. Behind all the inventiveness and the expansion of industry was a new spirit also, which is evident not only among the more famous and successful inventors, engineers and industrialists but also in persons of average ability. An illustration of this is an obscure machine factory set up in 1837 at Elbing, a small town near Danzig, whose establishment was advertised as follows in the local newspaper:

"The undersigned manufactures steam-engines, Watts' machines as well as condensation machines with expansion high pressure machines, iron water-wheels of all kinds, horse-drawn Persian wheels, hydraulic presses, rollers, apparatuses for dehydrating sugar in rooms with low air pressure etc. He also undertakes to set up whole establishments, such as oil mills, saw mills, sugar-beet factories, and takes the liberty to mention that he has completed the courses of the Royal Industrial Institute of Berlin, done two years' practical work in the same Institute, and thereafter journeyed to London through the Rhineland for further training."<sup>8</sup>

It is significant that the first to benefit from inventions was the textile industry. Here the incentive was the large demand

<sup>8</sup> *Elbinger Hefte* (1954).

in Great Britain and the European and American continents for textiles; the opportunity was the availability of cotton from India and America, and Indian textiles provided both patterns and the challenge of competition. John Kay invented the flying shuttle in 1733, Lewis Paul and John Wyatt introduced roll-spinning in 1738, James Hargreaves made the spinning jenny in 1764, Richard Arkwright the water-frame in 1796, and Samuel Crompton a spinning machine, called the "mule" ten years later. Improvements continued to be made. In 1785, Dr. Edward Cartwright made the first power-driven loom, which was further improved in 1853. A self-acting "mule" was invented in 1827. Across the Atlantic, the first ginning machine was made in the United States in 1793, which increased considerably the speed with which plucked cotton could be utilised for spinning. Interest in chemistry was reflected particularly in the manufacture of textiles. Study of the glass-colouring mineral, manganese, led to the discovery of chlorine, and its utilisation for bleaching. In this same process, the production of sulphuric acid supplied a much-needed substitute for skim milk sours that had been used so far. Soda, manufactured hitherto from expensive substances, now began to be made from salt. Industry thus supplied chemistry with new problems and new substances, while itself benefiting from advancement in chemical knowledge.

Between 1763 and 1769, James Watt (1736-1819) perfected his steam-engine. He grasped the need for economising heat and of converting the action of pulling a pump-rod, which was all that engines up to his time could do, into the turning of a wheel. The first change he made was to introduce double action, having two pistons instead of one and making them move alternately. The second improvement he made was to stop the admission of steam when the piston had travelled over but a part of the course, and make the expansion of the compressed steam complete the stroke. Between 1801 and 1825, quite a number of locomotives were constructed and used for pulling trucks on wrought-iron rails, which had begun to be manufactured in 1795. The engines moved at a very slow pace. But they could be used for other purposes also, and they opened the way for the utilisation of steam-power in the textile and other industries.

Progress in the iron industry was essential for improvement in machinery. The production of cast iron increased, more and more wrought iron became available after the introduction of puddling and the invention of grooved rollers. The employment of crucibles made steel more homogeneous. Furnaces became more efficient when a hot blast began to be used instead of a cold one, and more economical when the gases that escaped while smelting iron began to be utilised. The first factory for the production of rollers and cylinders was established in England in 1754, the first drilling machine was made in 1770, the planing machine in 1776. Between 1790 and 1800, machine-made tools became available. The early cylinders of steam-engines were not sufficiently accurate in bore. They improved considerably in efficiency when a new method of boring, first used for cannon, began to be applied. Wheel-cutting machines, hydraulic presses, blowers, steam-hammers, heavy screw-cutting lathes, and machines for producing nails also began to be manufactured. Templets for the reproduction of machine parts began to be made from 1830. It is interesting to note that the clock-makers had taken the lead in concentrating on precision. Machinery borrowed directly from their equipment was added to the chisels, gouges, drills, dies, vices now used by those who worked in iron. Screw-cutting lathes were improved to ensure precision. Methods and tools were devised for mechanically dividing the graduated limbs of instruments and rules, and dilatometers and comparators were made for measuring the thermal expansion of metals.

Technical improvements in the means of transport followed closely upon developments in industry. Apart from hard roads, canals were also made primarily for transport of heavy goods, barges and boats being towed by horses. The first steam-boats were built in 1787, and trams drawn on rails by horses began to be used in England from 1795. The first steam tramway was operated in Philadelphia in 1804, and steam-boats began to ply on the Hudson from 1807. But the next great step, after Watts' steam-engine, was the improvement of the locomotive by Stephenson (1781-1848) in 1814. It revolutionised transport on land. After the first trial run in 1815, locomotives began to be manufactured, and railway services were started in France and the U.S.A. in 1829 and in England in 1830. With the use



of iron for ship-building (from 1818), and the invention of the screw propeller (1836), transport by sea also developed rapidly, and the first Atlantic crossing by steamship was made in 1819.

The development of postal services has already been mentioned. The Semaphore system of telegraphic messages was invented in France in 1794, and was rapidly adopted in other countries. The present system was invented by Morse (1791-1872) in the U.S.A. in 1832, and the first telegraph line was laid between Baltimore and Washington in 1844. Various types of printed literature could become a widely used means of communication with the invention of lithography (1797), of a paper-making machine (1805), of the cylinder printing machine (1811), which increased by eight times the output of the press, and of the use of wood shavings for the manufacture of paper (1843). The first steel nibs were made in 1750 and the first fountain-pen thirty years later.

Mechanical inventions which gradually changed the whole character of warfare were the shell gun, first made in France in 1824, the needle-gun, manufactured in Germany (1836), the revolver, made by Colt (U.S.A., 1836), and the discovery of nitro-glycerine as an explosive. Experiments were also made during this period in the production of torpedoes. Miscellaneous inventions that were of great significance in different ways were the iron plough (U.S.A., 1797), sulphur matches (1825), and the sewing machine (1846-1850). Gas from coal began to be used for lighting from 1807, and within twenty years the streets of London, Paris and Berlin were gas-lighted. Davy (1778-1829) invented the arc lamp (1801) and the safety lamp for use in mines (1815). A Frenchman, Rene Laennec, invented the stethoscope (1819) now used by every physician, and an American dentist first used ether as an anaesthetic (1846).

After the discovery in 1776 of hydrogen and its properties by Cavendish (1731-1810), the idea of flying was taken up, and the first balloons were made in 1783 and 1784. An attempt to cross the English Channel in 1785 failed, but in 1836 a balloon flew from London to Weilberg, in Germany, a distance of about 500 miles. Flying was to remain a romantic ideal till the internal combustion engine had been perfected, but what the spirit of adventure would contribute to flying had already been foreshadowed.

## CHAPTER X

### THE AGE OF IMPERIALISM (1850-1914)

#### I

THE predominance of the European nations in the whole of the civilised world began from the end of the seventeenth century, and became more and more obvious with the decay of the Ottoman, the Safawi and the Moghal empires. We see it first in the commercial, military and colonial enterprises of the Spaniards, the Portuguese, the Dutch and the British. During the eighteenth century and for a good part of the nineteenth, Great Britain did not have keen or powerful rivals, and it would be correct to say that "European domination over the world was primarily British domination."<sup>1</sup> After the middle of the nineteenth century, other European powers and the United States increased their industrial and military strength and adopted policies of economic and political expansion. In addition to any national aims and aspirations they may have had before, the powerful western nations, including the United States, became an economic, political and cultural world by themselves which sought to grow and embrace the whole human and physical world. This expansion, which was political and economic as well as cultural, has been called imperialism, and gives its particular character to this period.

The history of these years is best considered from two aspects, one the internal relationships of the "western" nations, and the other the course of their expansion. We must not suppose that these aspects were not closely connected with each other. The internal relationships exercised great influence on external policies, because they consisted of attempts to adjust territorial boundaries, economic interests, political aspirations and demands of security within what was believed to be not only the most important but the real part of the world. Expansion outside this world, in Latin America, Africa

<sup>1</sup> E. Franzel, *Geschichte unserer Zeit*, 1870-1950, p. 99. (Oldenbourg, Muenchen, 1952).

and Asia, was not due entirely or mainly to needs that could not be fulfilled in any other way. It was to a large extent the result of fears that arose out of internal jealousies, rivalries and conflicts, or of a desire for greater profit or higher prestige.

Within the western world, Great Britain held a unique position. Apart from Catholic Ireland, which could not be integrated and ultimately became an independent country, Great Britain and the Colonies, later called Dominions, of Canada, Australia and New Zealand formed one composite unit. South Africa was both colonised and acquired. Within the "western" world, Great Britain with the Dominions stretched from one end to the other. India, Ceylon, Burma, Malaya, also formed parts of this composite body. India in particular exercised a decisive influence on British foreign policy, because to ensure the security of India, Great Britain felt it necessary to control the Mediterranean, the Suez Canal, the Persian Gulf, Afghanistan, the Himalayan passes, the Indian Ocean and the Straits of Malaya. The domestic policy of Great Britain is summed up in the relations with Ireland, Canada, Australia and the major possessions in South Asia. The relations with South Africa, after the Boer War, also became part of Great Britain's domestic interests.

Canada had two major problems, the fixing of the southern frontier and the adjustment of relations between the British and French elements in the population of the country. The loss of the thirteen American colonies had been a lesson. No attempt was made by Great Britain to insist on direct rule in Canada. Durham's Report, published in 1839, which was favourable in every respect to the autonomy of Canada, led to the drafting of the federal constitution by the Canadians themselves, and this was passed by Parliament in 1867. Australia was first used as a convict colony, and convicts continued to be sent, though in diminishing numbers, till 1867. But the immigration of free settlers also began from 1793. Their numbers continued to increase, more and more as the Australian continent was explored and settled, and the settlements grew into States. Political development first took the form of a movement for the autonomy of the different states. This autonomy was recognised by the British Parliament in 1850. Then began a movement towards a federation or

union, which achieved its purpose when the Commonwealth of Australia came into being in 1901. The colonisation of New Zealand began in 1840. Two wars had to be fought with the Maoris before the settlers gained complete possession of both the islands. A constitution was promulgated in 1842, granting autonomy, and New Zealand became a dominion in 1907.

The British took the Cape of Good Hope from Holland in 1814, and twenty years later the Dutch farmers in the neighbouring territory, called Boers, trekked north and east to found the colonies of Transvaal and Natal. When diamonds were discovered near Hopetown in 1867, the British annexed the diamond region. The discovery of gold in southern Transvaal further added to the importance of South Africa, and Cecil Rhodes, when he became prime minister of the Cape Colony, began systematic political and economic expansion at the expense of the Boers. The result was a war in 1899. Transvaal was conquered, but granted autonomy in 1906. The Union of South Africa was formed in 1910.

The racial problem in this dominion has acquired great social and moral significance. Southern Africa was peopled by different negro tribes. But these did not provide the type of labour required. The first indentured labourers were imported from India in 1860 and the importation of Chinese coolies began in 1903. These labourers settled down after the period of their contract had expired and were soon active and prosperous enough to arouse the jealousy of the white settlers. In March, 1907, when the Asiatic Registration Bill was passed, there was considerable opposition from the Indians and it found able and exalted leadership under Mahatma Gandhi. This opposition, however, did not prevent further legislation of the same type, and the Immigration and Native Land Acts were passed in 1913. The only result of organised opposition was an assurance given by General Smuts in a letter to Mahatma Gandhi that the law regarding Asians would be enforced in a just manner.

The interests of Great Britain were such as would be endangered by the rise of any power to the position of a rival. The expansionist policies of Russia kept Great Britain on the alert and, after 1880, the rise of Germany as an industrial, colonial and naval power became a major concern. Distrust of

France was traditional; it continued till the establishment of the "Entente Cordiale" early in the twentieth century. When the real weakness of Russia was shown by her defeat in the war with Japan, Great Britain came to a friendly understanding (1907). Between the Crimean War (1854-56) and the world war of 1914, the general attitude of Great Britain towards other nations was one of aloofness or distrust, confirmed by an unwillingness to make general or long-term commitments. This not only weakened Great Britain as a power standing for peace but could be considered a contributory cause of the world war.

The political history of Europe between 1856 and 1914 can be divided into two parts, from the Congress of Paris (1856) to the Treaty of Frankfurt (1871), and from 1871 to the outbreak of the world war. The main events during the first half were the unification of Italy under the king of Sardinia and the formation of the German Empire under the king of Prussia, who became German Emperor. Italy was divided into the kingdom of Sardinia, the Austrian possessions, Lombardy and Venetia, the Papal states and the kingdom of Naples. In 1830 and 1848, unsuccessful attempts had been made to rouse the people to fight for unity and independence. Idealists like Mazzini hoped to win liberty and independence through the efforts of the Italians themselves. Cavour, who became Prime Minister of Sardinia in 1852, was a realist. His diplomacy and the daring of Garibaldi (1807-1882) finally brought about the proclamation of Victor Emmanuel, king of Sardinia, as the king of Italy in 1861. The unification was completed after the withdrawal, in 1870, of French armies stationed in Rome.

The problems which faced Bismarck (1815-1898), the great statesman who brought about the unification of Germany, were entirely different. He had to convert the sentimental attachment to Austria into an alliance between equal partners. He had to convince the western and southern states of Germany that their interest lay in coming to terms with Prussia rather than attempting to hold the balance between her and France and Austria. He had to win the support of the people for a policy in which persuasion would have to be combined with force. He first created a situation in which Austria had no choice but to go to war with Prussia, and was able, as a result,

to establish the North German Confederation in 1867. After this he provoked a war with France, for which Napoleon III provided him the opportunity in 1870. He realised his main aim by the defeat of France and the proclamation of the king of Prussia as German Emperor in the Hall of Mirrors at Versailles in 1871.

From 1871 till 1890, Bismarck maintained a balance of power in Europe by means of alliances that would ensure security but not create distrust or opposition. After his resignation, Germany adopted an adventurous policy. The Reinsurance Treaty of 1887 with Russia was allowed to lapse, and France was given the opportunity to establish financial and political relations with Russia. This led ultimately to an agreement in 1894, which could easily take the form of a military alliance in case of war. Towards Great Britain, the German emperor adopted an annoying and short-sighted policy.

The last of the "western" powers to enter the field of world politics was the United States. Though constitutionally united, economically the United States consisted of two parts, the northern and the southern, with sharply opposed interests. The north was being industrialised, the south was agriculturist, aristocratic, conservative, with an economy depending on slave labour. A growing estrangement, increased by rivalry for control and sharing of the territories west of the Mississippi, rose to a climax around 1860. Abraham Lincoln, elected President in 1860, was deeply convinced that slavery was not a social or economic but a moral issue, that democracy and a democratic form of government were obligatory on all the individual States as well as the United States. He felt that matters had come to a stage when the use of force to abolish slavery had become essential and inescapable. The Civil War (1860-64) was long and bitter. It brought indescribable suffering. But it also provided solemn and momentous occasions for the enunciation and assertion of principles which have made Lincoln an inspiring prophet of democracy.

When we turn from the internal affairs of the "western" world to the vast field of its expansionist activities, we are faced with a multitude of events. These become most intelligible if we consider them according to the type of reaction western expansion produced.



There is, first, the type of reaction produced in Japan. This country had lived for over two centuries (1640-1854) in isolation under the "Shogunate" of the Tokugawa clan. The Emperor had been completely eclipsed by the Shogun, and lived in seclusion, while the Shogun ruled on his behalf. It was an age of peace, in which the merchants and artisans prospered, and the population began to concentrate in towns. In 1723, Yedo — now Tokyo — had 500,000 inhabitants, in 1800 over a million, and was larger than London or Paris. But from the military point of view Japan had made no advance, and when, in 1854, Commodore Perry demanded the establishment of commercial relations between Japan and the United States, the demand could not be resisted. Treaties had to be made with Great Britain, Russia and Holland, and commercial penetration increased, bringing with it extra-territorial jurisdiction<sup>2</sup> of foreign powers. But Japan soon recovered from the shock of this commercial invasion. The Shogunate was abolished in 1868, to be succeeded by what is known as the Meiji Era, after the able Emperor Meiji, who initiated the amazingly rapid industrialisation and development of the country. In 1889, a new constitution, carefully guarding the rights of the emperor and providing for a bicameral legislature, was promulgated. Japan soon had an efficient government, a strong army and navy, and a high standard of living which made economic and political expansion essential. In 1894, Japan was strong enough to start on a venture of conquest and economic domination.

The second type of reaction is represented by China, Iran, Siam (Thailand), the Ottoman Empire, Egypt, Ethiopia, and some of the Latin American States.

China fell prey to the imperialist ambitions of Great Britain, the United States, Russia, Japan, Germany and France. Because of the enormous difficulty of organising so vast a country, no effective resistance could be offered, and every attempt at armed opposition led to a tightening of foreign domination. Beginning with the Opium War (1839), the result of which was to make it easier for the British East India Company to export opium from India to China, we have the

<sup>2</sup> This meant that foreign nationals in Japan would not be subject to Japanese laws, but to the laws of their own particular country.

popular opposition leading to the Treaty of Nanking with Great Britain, by which China was forced to cede Hongkong, to open ports like Canton and Shanghai to trade under the supervision of consuls and to fix a uniform import duty of 5 per cent on all goods. This treaty served as a pattern for others. In 1844, American and ultimately all foreign residents had to be given extra-territorial rights. The treaties of Tientsin (1858) mark the complete subordination of Chinese economy to the interests of the imperialist powers, and the war of 1894-95 with Japan the beginning of the annexation of Chinese territory by force of arms.

An attempt made by the Manchu government, in 1906, to reform its administration failed, and Dr. Sun Yat-sen and Yuan Shih-k'ai organised, in 1911, a revolution which achieved all the success that was possible under the circumstances. The boy Emperor P'u-i abdicated, China was declared a republic and Yuan Shih-k'ai was elected provisional president. It was unfortunate, however, that his personal ambition ruined the prospects of national reconstruction and parliamentary government.

In Egypt, a tradition of progress and development along "western" lines had been created by Mohàmmad Ali Pasha, and this, together with the construction of the Suez Canal (1854-1869) drew Egypt into the net of the financial and strategic interests of the imperialist powers. The first foreign loan to be taken was from the British, by the Khedive Mohamad Said (1854-1863). Many more loans were taken by the Khedive Ismail (1863-1879), when the American Civil War increased the demand for Egyptian cotton, and the country seemed to have become suddenly prosperous. The loans were for public works — canals, railroads, harbours, telegraphs — and for schools. But the rate of interest was exorbitant, and Egypt piled up a tremendous public debt. In 1876, following a report in which the Khedive was accused of unwise borrowing and spending, foreign control of Egyptian finances was established. The country was squeezed to pay off its creditors. At the same time, British military officers in Egyptian service extended Egyptian territory to the Red Sea and up the Nile till the Sudan. The mounting national feeling was opposed inevitably to the Khedive, as the instrument of foreign domination, and this forced the Khedive to rely more and more on

foreign support. A rising of Egyptian army officers under Arabi Pasha in 1881 failed, and though the Khedive's authority was maintained in name and a general assembly and a council created the illusion of government by consent, the British Resident and Consul-General was the real ruler of the country. The people's opposition, however, continued. The first Nationalist Congress was held in 1907, and in 1913 the Khedive was forced to concede a form of constitutional government. But when war broke out in 1914, the constitution was suspended and Egypt was declared a British Protectorate.

The third type of imperialism and the reaction to it is represented by India, Ceylon, Burma, Indonesia. Here the pretence of ruling through the native kings and princes was soon given up, and along with economic and financial domination there was also direct political administration. Of these countries, India was large enough and possessed of a tradition of independence and power strong enough to withstand the pressure of political and economic imperialism to some extent, and to generate forces that would ultimately ensure release from imperialist domination. The fires lit in 1857 smouldered here and there for over twenty years, and in 1885 an outlet for the expression of public opinion was created by the establishment of the Indian National Congress. Reactions to racial and social discrimination, to denial of equal opportunity continued to strengthen anti-British sentiment, while the first reverses of the British in the Boer war and the defeat of Russia by Japan created a new hope. The smallest concessions made by way of granting representation on administrative bodies opened up the possibilities of further concessions, and the Minto-Morley reforms of 1909, however inadequate, made the introduction of constitutional government inevitable sooner or later.

The fourth type of reaction to expansion can be called a reaction only in its earliest forms, because the territories concerned became colonies or settlements directly administered by the imperialist power. Examples of such colonisation are Tunis, Algeria, Morocco, West Africa, the Congo Basin, South-west and East Africa. In North Africa and Morocco the opposition of the tribes was fierce and continuous, but they could not find the armaments and the resources for a decisive conflict. The West African possessions of Great Britain, France

and Germany and other parts of Africa mentioned above, were peopled by tribes too backward to offer noteworthy resistance.

The age of Imperialism culminated in the catastrophe of the World War of 1914. The causes of this have been simplified by prejudice, the whole or most of the blame being thrown on one party. But they are in reality so complicated that one can regard the war only as the inevitable result of a political and economic system. The desire for security had led Germany, Austria and Italy to form the alliance known as the Triple Alliance. Against this was built up, in the course of over ten years, the Triple Entente of France, Great Britain and Russia. This grouping could have been a means of maintaining peace, if the members of both the alliances chose to restrain each other. A war would, on the other hand, involve them all and become a European or a world conflict. The desire for security, again, induced each of the powers to increase its naval and military strength. But far from reassuring each or all the nations concerned, every addition to military strength aroused further fears and suspicions. The naval and military advisers of governments acquired a decisive influence, and men whose profession was fighting got the opportunity of determining whether or not war was necessary or advisable. The feeling of power made the press more loud and violent, and statesmen far-sighted enough to realise the fatal consequences of an armed conflict had to face inflamed popular passions. Nationalism, which had led to the unification of Italy and Germany, gradually became a continuous provocation. It led to crude theories of inherent racial and cultural superiority, to exhibitions of strength, to irritating methods of self-assertion, and it made the promotion of the interests of one's own nation at the expense of others a primary civic obligation.

The scramble for colonies, economic competition, protective tariffs, all accentuated ill-feeling and created bitterness. Wars had been waged by the newspapers long before the actual military conflict. This began with small fires in south-eastern Europe, where new nation-states were coming into a chaotic existence, threatening to break up the Austrian and the Ottoman Empire, and rapidly involved the whole of Europe.

## II

Before we describe the beliefs of this period, it seems necessary to reassure ourselves as to what position should be assigned to belief in comparison with organisation and skill, or industry. We see a growing conviction that happiness and survival depend on the different forms of organisation — economic, political, social — being just, comprehensive and effective enough. We have also industrial development on such a scale and exercising such a decisive influence not only on the policy of the states but on the life and ambitions of every individual that it seems to determine what forms organisation and, for many people, beliefs shall take. If we consider this period by itself, there was so strong and general a feeling that progress was a reality and an end in itself that no discussion of beliefs would be required. It is only when we examine the situation in the early twentieth century and consider the period as a whole in its historical perspective that we appreciate the significance of belief in the civilisation that thought it could do without metaphysics and religion.

A discussion of belief during this period should begin with Liberalism, which broke down and was replaced with beliefs of another type. Liberalism concentrated attention upon the good in this world, upon making society secular and giving the individual his right to be religious in any way he pleased in his private life. It inculcated an optimism which led people to suppose that there were no problems that the advance of scientific knowledge would not solve. This was the enlightened outlook, and during this period it was adopted by the less educated and less prosperous classes also. Events and policies further confirmed the Liberals in their opinions. Schools stopped giving religious education, civil marriage was made obligatory in most states, and it was symbolic of the dethronement of religion that in 1870 the Pope lost his princely position and became a voluntary prisoner in the Vatican. But Liberalism had drawn its strength from the urge to free economic life from all traditional and legal restraints, and it became evident during this period that such freedom would lead to the economic enslavement of a large part of the population. In the United States, this freedom was checked by means of legislation ; in

England the policy of the state became gradually collectivist, which meant that the state would act and legislate in the interest of the people as a whole. In Germany, in order to counteract the spread of socialistic ideas, Bismarck carried through a policy that gave great security to the working classes. With its economic philosophy undermined in this way, Liberalism gradually faded out as a form of belief.

But Liberalism represented only one way of looking at life. Positivism and Materialism were, during this period, given more scientific and precise expression and were popularised through an increasingly large volume of literature. Positivism, as we have seen, was opposed to every idealistic or religious interpretation of life and events. It recognised only that which could be apprehended by the senses, which could, in other words, be measured, weighed, calculated. Materialism is the belief that life is nothing but the movement of matter, that there is nothing beyond the physical world. Both Positivism and Materialism derived immense support and confidence from the theory of evolution. This theory consists, in fact, of deductions made from observation of all forms of life, of their classification into species and of attempts to prove — by observation — how particular species gradually changed their characteristics, developed qualities that ensured their survival, or underwent changes that brought them closer to the next highest species in the classification. This theory was taken to mean that environment has a decisive influence, that all environment is unfriendly, if not hostile, that Nature is "red in tooth and claw," destroying its own offspring, and that where the law of nature holds sway, only the fittest survive. This may not need proof when we consider animal life, but those who believed in science assumed in their enthusiasm that these scientific observations were applicable to human beings and human life also. The idea that only the fittest deserved to survive, however obviously immoral and brutalising, found expression in imperialism, in theories of national and racial superiority, in war. It bred conceptions of realism which undermined not only moral but aesthetic values and induced an outlook on life that was thoughtless to the point of being fatal.



At a higher, or at least a different level we have, first, theories of the evolution of religious beliefs like other forms of knowledge, and of their being subject to the influences of environment and time. These theories constituted what is known as the science of comparative religion. Christian doctrine and practice was subjected to the same tests and evaluated on the same basis as other religions. This prompted some thinkers to challenge the whole Christian doctrine; others took a commonsense, rationalist view. A notable example of the rational but respectful approach was Renan's "Life of Christ." Secondly, there were developments of the thesis, originally put forward by Kant, that the metaphysical is beyond the comprehension of reason. Lastly, there were attempts to accommodate religion in a civilisation overshadowed by science and industry. These led to the vague conclusion that religion is exalted emotion, pure feeling, and is concerned only with man's inner life.

The different forms of Protestantism were more in the grip of the modernist spirit than Catholicism, which rejected all modernist tendencies. In 1870, it was decreed that in all matters relating to religion and morality, the Pope was infallible. There was a minority of Catholics who found themselves unable to subscribe to this view, but Pope and Church stood firm. In the early years of the twentieth century, the advancement of science itself created a situation in which it became almost inevitable that metaphysical questions should be raised. Philosophy and sociology not only began to agree upon the dependability of religious and metaphysical conceptions but on their own account gave religion the position of an essential factor in human life. Religious philosophy could now bring forward spiritual experience as evidence for eternal truths, because the science of psychology recognised the irrational element in human nature, and admitted intuition and introspection as possible means of acquiring knowledge. This, in a way, justified the stand taken by the Roman Catholic Church. Catholicism as well as Protestantism could now make a place for themselves within contemporary knowledge, and judge developments of thought critically and with confidence. They also attempted to exercise direct influence, specially on working class movements. It was thus shown that Christianity was responsive to the demands of the age, and the intellectual as

well as the industrial worker could accept it without feeling that there was an inner contradiction between secular and religious ideals.

Among those who helped to give this period a particular religious colour were writers like Tolstoy (1828-1910) and Dostoevsky (1821-1881). They were realists in the sense that they searched for the real causes of social injustice and personal suffering. Their religious thinking arose out of and, according to their belief, was immediately applicable to social conditions and personal situations. Tolstoy rebelled against the Orthodox Church, against the general attitude to Christianity and against the social order that was supposed to be based on Christian morality. He was among the greatest literary artists of his age, and could appeal to a far larger public than the purely religious writers or thinkers. Dostoevsky represents the spirit of resignation, but he was gifted with an imagination which could comprehend in a glance the depths of misery and crime and the exalted heights of a Christ-like purity. The colours of both he combined on the vast canvas of human suffering and pain, and compelled all who read him to seek and find for themselves the truth of the Christian religion and the meaning of Christ's love and suffering.

Other literature of this period aimed at rousing the social conscience in order to realise the ideals of truth and justice. Victor Hugo (1802-1885), Emile Zola (1840-1902) and Ibsen (1828-1906) may be mentioned among those who, besides being literary artists, attempted to give certain social and personal values the quality of beliefs.

We have seen that socialism in its origin had a character so strongly romantic that it could almost be called religious. Its development after 1850 was more in the form of a programme than of a doctrine. Socialists believed in argument and persuasion. They strove to promote the welfare of workers by means of legislation, and by the end of this period had important achievements to their credit. Communists elucidated their philosophy of dialectic materialism, their interpretation of history, their doctrine of class struggle, their vision of a classless society achieved through the dictatorship of the proletariat. Their tendency was towards dogmatism, towards insistence on absolute concurrence, and inevitably a

terminology was evolved to indicate the types and degrees of divergence. The indiscriminate use of these terms makes the record of discussions unpleasant reading, but it proves that communist orthodoxy is like the orthodoxy of any fanatical religion.

But it was not communism or socialism or any of the religious creeds that commanded the highest loyalty of the largest number of people in the western world. It was the nation-state, and what was conceived at any particular time to be the interest of the nation-state. This overriding loyalty to the nation-state is known as patriotism. We have described it earlier. Now, under the stress of competition, of expansionist and imperialist tendencies, it became potentially one of the most aggressive and destructive beliefs that have misguided mankind. Its evil tendencies were aggravated by theories of racial superiority, of cultural excellence, of a natural right to dominate others such as are seen in the works of Gobineau (1816-1882), Chamberlain (1855-1925) and Treitschke (1834-1896). Nietzsche (1844-1900), without perhaps intending it, preached a philosophy of the Superman in a strain which reduced the ordinary man almost to the position of a worm to be crushed under the heel, and all common ideas of morality to weeds that needed to be removed, if the garden of human life is to impress the eye. On a much lower level of thought, but far more effective in political affairs, was the outlook represented by the ambition of Cecil Rhodes: "I would annex the stars if I could." On the other hand, the potentiality of patriotism to stimulate noble effort, to build up systems of secure and happy living, to make national life a vast field of philanthropic experiment remains incalculable. It was patriotism of this kind which transformed imperialism into the ideal of the white man bearing upon his shoulders the burden of civilising the world of backward peoples.

If we turn to countries outside the western world, we see beliefs in an entirely different context. It has generally been supposed that while western thought and western society were dynamic, Islam was the unalterable religion of a static society. "Yet, in fact, the inner structure of Muslim religious life was being profoundly re-adjusted and . . . the process generated an expansive energy which found outlets in different

society by bringing it closer to its original form in the Vedic age. There was an element of militancy also in his movement, and prejudices against other communities were created that a liberal and objective study would not have justified. But the rejection of caste, the opposition to idol-worship, the insistence on the education of women and the remarriage of widows were undoubtedly healthy and progressive beliefs. The followers of Dayanand Saraswati are known as the Arya Samajists. They have not become a sect because of their strong proselytising tendency, but still distinguish themselves from the rest of the Hindu community.

Ideas of nationalism, democracy, political and legal equality of all citizens, the rule of law came to the Muslim world and India through western education. They were equated vaguely with traditional beliefs or practices, but accepted more for the opportunity they offered of getting on in the world than because of a belief that through them the social ideals embodied in religious doctrines would be realised. In India, the British government, imperialist in outlook and character, was specially vulnerable to nationalist attacks because of its open and constant profession of faith in liberty and democracy. But it could not be said with assurance that in India political idealism, imbibed through education and reinforced through constant repetition, would still be strong enough to act as an integrating force, because no serious attempt was made to fuse it with the traditional outlook and give it the character and quality of belief.

The difficulties in China were greater than in India and the Muslim world, because beliefs there had long been a personal or a family matter. The Taiping sect, founded by Hung Hsiuch'uan (1814-1864), which rebelled against the Manchu government and attempted to establish an administration based on its own religious principles, is typical of the mental confusion. The Taipings aimed at founding the Heavenly Kingdom of Great Peace, and this great peace was to be attained by community of property, the brotherhood of man and the equality of the sexes. But none of these principles had any traditional background of belief and practice and led only to injustice and exploitation. K'ang Yu-wei (1856-1927), a philosopher, scholar and statesman attempted to revive China

through a re-interpretation of Confucian doctrine and the application of western principles of government. He is supposed to have been the last prominent figure to attempt reform of beliefs in the Confucian tradition. Dr. Sun Yat-sen (1866-1925) who brought about the revolution of 1911, was a revolutionary, and not a thinker or scholar according to Chinese or western standards.

### III

The nation-state had appeared earlier in the West as the embodiment of power and the creator of prosperity. Now the democratic nation-state took its place, democracy meaning government by the elected representatives of the people, which was now both a criterion and an idea. The franchise was extended, till by the end of this period the principle of universal adult suffrage was generally accepted. The evolution of the party system led to majority rule, this majority consisting of one party, as in England generally, or of a combination of parties, as often on the European continent. The pressure to increase party membership made a clearer definition of programmes necessary, and parties fought elections on the basis of the policy they proposed to follow and the legislation they intended to carry through if they attained enough strength to make or influence decisions. The parties represented views, interests, beliefs. They influenced public opinion by appeals to sentiment, sense of justice, or material benefit. The election became a campaign which was planned and directed by the leader of the party, whose success depended on his ability to understand and utilise situations and appeal effectively to the people. Political life became very complicated, and it was very difficult to identify with certainty the influences that determined the decisions that were taken. Still, if the period is considered as a whole, certain trends are visible.

The most important of these is the change in the functions of the government. The right of the people to judge, even if exercised at the fairly long intervals between the elections, brought more and more into effect the principle of government in the common interest, and parties were obliged to make compromises between what they presumed to be right because

it was in accord with their interests and beliefs and what the electorate considered to be right in its own interest. In the United States, after Abraham Lincoln had forced a decision against slavery and against the right of any State or States to secede from the Federation, the principle of non-interference continued to operate. But the Sherman Anti-Trust Law of 1890, the action taken by the administration in labour strikes towards the end of the nineteenth century, legislation in regard to limiting hours of work for children and women, and legislative and judicial decisions on such matters as railway fares and charges indicated possibilities of change. In Great Britain, two measures of electoral reform, in 1867 and 1884-85, widened the suffrage and rationalised the division of constituencies; the Education Act of 1870 was the beginning of government's assumption of responsibility to educate the people, several Acts of Parliament continued and extended the underlying motives of the Factory Acts of 1833 and 1847 and insured working men against accidents, old age, unemployment; the Trade Disputes Bill (1906) secured trade unions against liability for the illegal actions of any of their members and legalised peaceful picketing. In the budget of 1909, the possessors of wealth were taxed for the first time to enable the state to fulfil all the responsibilities undertaken for the welfare of the people as a whole.

Germany had taken the lead in ensuring the welfare of workers with legislation covering health, accidents, old age and invalidity (1883-1889). This was subsequently extended and improved. Industrial courts were set up in 1890 to settle wage disputes, and factory inspection was made more efficient. At the same time, hours of work were restricted for women and children, and a weekly holiday was made obligatory. The attitude of the government was patristic. The motive was to wean workers away from socialism and to prove that the state was deeply concerned with their welfare. But the system, once established, was worked honestly and efficiently.

There is no doubt that legislation of this kind brought great benefits, specially if the administration was serious in its purpose. But such legislation was the result of the growing pressure of workers upon society and government. The Chartist Movement in Great Britain had a socialistic character, and as



early as 1863, Ferdinand Lassalle (1825-1864), who is regarded as the founder of Social Democracy in Germany, organised the Universal German Workingmen's Association. Lassalle was deeply influenced by the teachings of Karl Marx, and after his death, representatives of workingmen's associations met together at Eisenach (1869) and formed the Social Democratic Workingmen's Party. In Great Britain, trade unions had begun to be formed in the late eighteenth century. In 1825, workers were allowed to combine in order to secure regulation of wages and hours of work, but they were forbidden to strike and use violence in any form. The Miners' Federation (1888) was the first to include both skilled and unskilled workers and create the kind of solidarity without which trade unionism cannot succeed.

Legislation in the interest of workingmen, examples of which have been briefly outlined above, was not, however, a solution of economic problems, and trade depressions led to unrest and strikes. The real solution obviously lay in organised labour forming its own party and guiding, or at least influencing, economic policy in such a way as to safeguard and promote the interests of labour. In this respect, only a beginning was made. The formation of strong labour parties was still not possible, other parties continued to canvass workingmen's votes, and the workingmen to strike whenever their condition deteriorated.

There were panics and periodic trade depressions during this period, but in most western countries, and specially in Great Britain, Germany and the United States, industry was expanding and trade finding new markets. Wealth was being rapidly accumulated, and the ambitions of the producers and the possessors of wealth were being stimulated by the policies of their states. The working classes were not denied what was deemed to be their appropriate share in this wealth. Their living conditions improved considerably, and they were not behind other classes in their devotion to the nation-state and in serving its interests in peace and war.

All the states which were anxious to acquire more wealth and power had to devote a continuously increasing part of their resources to the development of their own armed forces. This was done in a spirit of rivalry and competition, and the

last decades preceding the world war of 1914 have been aptly called a period of armed peace. The German standing army, which numbered 400,000 men in 1874, had increased to 850,000 in 1914, and could muster 4 million men for war. France, with a diminishing population, was desperately anxious to keep pace. Austria had a peace strength of 500,000 and a potential of two million men in wartime. The Russian army had a peace strength of a million and a half and a war potential of six million. The British navy consisted, in 1914, of twenty dreadnoughts and a corresponding number of battle-cruisers, cruisers, destroyers and other craft. The German fleet, beginning almost from scratch, had thirteen dreadnoughts in 1914, and apart from warships she had a fleet of submarines whose deadliness in wartime had not been estimated.

The success of Prussia against France in 1870 made all the continental countries adopt the same methods of recruitment and training. Every able-bodied citizen became liable to personal service in the army. This service was divided into a period of two or three years' intensive training in the standing army, five to seven years in first class reserve and about five years in second class reserve. The period in the standing army was kept as short as possible, so that the largest number of persons might be given training and also in order that the professions and industries might not be deprived of the best people for too long a time. The reserves could be called up for short terms of training, and in case of war be asked to join the ranks. But universal conscription made the armies potentially so large that mobilisation became a subject of great concern by itself. It had to be as rapid as possible, and every care had to be taken to see that the arrangements should work smoothly, since a nation could not risk even an hour's delay once a rival had given the order to mobilise. The training, in view of the continuous improvement in armaments, and the problems of mobilisation and of supply were such as to require a highly qualified staff working incessantly even in peacetime, and the whole organisation of the army became so elaborate and immense that the question of war or peace could not be debated for long. The army was forced to insist that the statesmen should make up their mind.

Great Britain and the United States did not adopt the system of universal military service. This was partly due to a sentimental dislike of conscription, partly because of a feeling of security. Great Britain was more in need of a navy than an army. While continental nations counted their armed divisions, Great Britain counted her warships, and insisted not only on the right to have a strong navy herself, but on other nations not increasing their naval strength. Besides, Great Britain required armies for service abroad, and these could be recruited only on a long-term, voluntary basis. Such armies could not, in case of war, be increased by calling up reserves. Great Britain, therefore, depended on able-bodied citizens enlisting and getting trained whenever a national emergency arose. Not being short of patriotic citizens, she could disclaim all intention of being militarist without actually reducing her military potential. Possible delays would mean a danger only to the European country that happened to be attacked while Great Britain was getting ready.

Significant changes had come about in arms and armaments. Warships carried 16 inch guns, the Germans had manufactured siege-guns of hitherto unknown power and range. But more decisive in actual warfare were field artillery, in the use of which the French had specialised, the small bore magazine rifle, on which the British most relied, the machine-gun, a relatively new weapon the potentialities of which had been explored most carefully by the Germans. Like the problems of recruitment, training, mobilisation and supply, the tactical utilisation of the different weapons was carefully and continuously studied. The production of weapons required time, and decisions had to be taken in advance in regard to the organisation of production. The Germans are accused of pre-meditation because the Schlieffen Plan for the invasion of France had been prepared years before the war broke out. But it is obvious that the whole organisation of offensive and defensive power becomes illogical and may prove futile unless its possible use is thought out at the same time.

The years between 1870 and 1914 were a period of almost hysterical imperialism. The political aspect of this imperialism has already been outlined. If we analyse it in order to discover the forces at work, we find a wide variety of motives. To have

an empire was a matter of prestige, and to maintain it once it had been acquired was still more a matter of prestige, though the "empire," like the Italian colony in Eritrea, might be more a liability than an asset. But the empire could provide natural products, raw material, opportunities for the investment of surplus capital and the settlement of surplus population. The system as a whole does not, however, seem to have always had a rational basis. Industrialisation in the more advanced European countries made them dependent on imported food, and to pay for this, money had to be invested in the development and exploitation of resources abroad. But this explanation would not cover all or even most of the cases. Investments were sometimes made mainly for political purposes, like the French loans to Russia towards the close of the nineteenth century. Loans were given in the purely money-lending spirit, and could even be forced upon unwilling borrowers. The growth of large joint-stock companies, looking for profit wherever it could be found, the desire of the man with savings to increase them by clever investment, the willingness of states to sponsor or provide opportunities for investment of capital, along with real economic needs created a situation in which "empire" meant wealth, security and power, and for most men these three things are the most worth having. This "empire" could be invisible, like the economic domination of several South American republics by the United States, it could take an imposing visible form, like the British Empire in India, it could consist of "concessions," "settlements," extra-territorial rights, monopolies, Christian missions and missionaries, as in China, or it could be the enterprise of an international trading company, like the exploitation of the Congo valley. There can be no doubt that imperialism was in many cases and in many ways a reckless pursuit of gain, that it embodied a spirit of arrogance unpardonable in any people. But it had also a constructive side. Much capital was sunk in improvements in transport and communications, in dams, bridges and harbours, and these the imperialist investors could not take away with them when circumstances forced them to leave. An Asian or an African cannot but resent the assumption of moral and cultural superiority with which missionary and educational work was done by agencies that took advantage of imperialist

expansion; but a great deal of philanthropic work was also accomplished, specially in the organisation of medical service, and this provided both an example and the necessary experience for those who later took up the responsibilities of government.

Competition, jealousy, suspicion, self-assertion without regard for the possible consequences were the characteristic features of national policies during this period. But there was also another development which it would be unjust to ignore. It arose not only out of a need, but also a desire, to elaborate and codify international law and obtain recognition of it from all states. One aspect of this was purely legal, the other would apply to the rights and obligations of states at war with each other. In the second aspect would be included measures to prevent war as well as conventions governing conduct during war. The Holy Alliance, proposed (and formed) by Tsar Alexander at the Congress of Vienna in 1815, and the decision to hold European Congresses to consider and decide outstanding issues between European states was the first move made in this direction. At the Congress of Paris, in 1856, "there seemed to be such a thing as Europe, undertaking collective obligations, protecting small states, rationally and peaceably conducting its affairs." The Congress decided that privateering should be abolished. It considered the position of goods under neutral flags in time of war and decided that if any power declared a blockade, it was the responsibility of that power to make the blockade effective. These were problems that statesmen were concerned with. The Crimean War had brought to light the utter insufficiency of the arrangements made for the sick and the wounded, and shocked all who possessed any sympathy for human suffering. The result was a movement, begun on private initiative, in which Switzerland and other states became interested, and at a Conference in Geneva the historic Red Cross Convention was signed on the 22 August, 1864. This Convention converted the moral duty to protect the sick and wounded soldiers in wartime into an international and legal obligation.<sup>8</sup> The Convention of 1868, also signed at Geneva, laid down the principle that the enemy may be disabled in war, but should not be made to suffer needlessly or die

<sup>8</sup> Scott, *The Hague Conferences*, 1899 and 1907. p. 20 (Johns Hopkins Press, Baltimore. 1909).

inevitably. Tsar Alexander II of Russia called together a conference at Brussels, in 1874, which drafted an international declaration concerning the laws and customs of war. Those who attended the Conference were not accredited representatives of states, and the declaration was not binding, but it prepared the way for the Hague Peace Conference of 1899.

A favourable public opinion had been created by peace societies which first came into existence in the United States and Great Britain and later in European countries. If we consider the results of the Hague Peace Conference on the basis of decisions taken, there is little beyond the establishment of an International Court of Arbitration. But the scope of the discussions was wide. It included the pacific settlement of disputes, compulsory arbitration, limits to the use of force in the recovery of contract debts, the establishment of an International Court of Justice, laws and customs of wars on land, rights and duties of neutral persons in case of war on land, status of enemy merchant ships, conversion of merchant ships into warships, submarine mines, bombardment of undefended ports, naval warfare, aerial warfare, limitation of armaments, and factors that make for peace. The significance of these discussions should not be estimated only by the measure of agreement reached, for all the powers were anxious to safeguard their freedom to use what means they thought advisable for ensuring their security. The Hague Peace Conference of 1907 was held in an even more unpromising atmosphere, and yielded even less results. But no state which had participated in the Conferences could claim irresponsibility as a matter of right, although it might act in an irresponsible manner. Old habits persisted. The war of 1914 was more destructive than any previous war. But the new habit of discussing international problems could also not be given up, and it was idealistic but not foolish to hope that a good habit would gradually take the place of a bad one.

This is an outline of political organisation in the "western" world. The countries or territories that fell under the yoke of imperialism present a very varied picture, and it is not possible here to describe their organisation in detail. Roughly, these may be placed in three categories. The first category would consist of those where the imperialist power established a colony of its own people, and considered the whole population



identical with its own settlers. Typical of this policy were the French possessions of West and North Africa, about which it was said later that they were an integral part of France, and the indigenous people technically Frenchmen. These territories were governed entirely in the interests of the settlers, the indigenous people were considered socially inferior and politically and economically negligible. To the second category would belong countries and territories where the imperialist power established its political authority, but did not attempt large-scale colonisation, the "white" people being mainly those carrying on the government, planters and businessmen. The "whites" remained a minority here. They justified their position morally by saying that the natives were not able to look after themselves, and it was the mission of the "whites" to educate them in the methods of self-government. India was the most outstanding example of such education under imperialism.

In 1858, the government of India was taken over by the Crown. This meant that the supreme power would vest in the British Parliament, and the country would be governed by the British Cabinet. A Board of Control had been established in 1784. The President of this Board, who used to be a member of the Cabinet, now became the Secretary of State for India, and the Board an Advisory Council. The Secretary of State submitted an annual report to Parliament, and Indian affairs were debated when necessary. In the country itself, the Governor-General-in-Council was the highest authority, possessing the necessary constitutional power to carry on the administration and to make laws as required. But all policy decisions and laws were subject to revision, and it was expected that the Secretary of State would be consulted and his guidance taken in all important matters. A Civil Service had already been constituted. The selection for this was now made through a competitive examination and on the basis of other criteria which offered almost exclusive chances to young men with a Public School and University education. The appointment took the form of a Covenant made with the Secretary of State. The civil servants occupied all positions of authority and responsibility in all the departments of the administration, and could also join the judicial service if they chose. Their Covenant with the Secretary of State gave them a certain measure of

legal independence, and they could also look upon the government of the whole country as their own direct concern. They used the weight of their opinion to increase their own control of the British-Indian administration, insisting that the man on the spot understood best the affairs he had to deal with. The Indian National Congress was founded in 1885 by a retired civil servant, the object being to enable the government to hear and understand the real Indian viewpoint. But it was soon discovered that the Congress would not remain merely an agency for conveying to the government the views of the people, and the civil service used its knowledge and prestige to oppose tendencies to allow effective participation of Indians in administration and legislation. Too much, however, had by then been done to prepare the ground for this. The Governor-General's Council was enlarged in 1861 for legislative purposes, and the Governors of Madras and Bombay were given Councils of their own. In 1882, municipalities and district boards, the organs of local self-government, were given a largely elected membership. Ten years later, the Viceroy's Council was again enlarged by the addition of indirectly elected members. This membership did not carry with it any power to influence decisions. Even the Legislative Council constituted under the Act of 1909 only provided the opportunity to make speeches. But speeches can tire out even if they do not convince. The British Indian government had to retreat from one position to another. It was really the first world war, however, that weakened the position of the British as well as the British Indian government both morally and logically.

The British government in India was a foreign government with a sense of responsibility, desirous, if in a rather lazy and unimaginative way, of doing its best. The imperialist powers in China, on the other hand, did not accept any responsibility whatsoever. The Manchu government became, by degrees, subordinate to and dependent upon the representatives of the powers who had thrust themselves upon her.<sup>9</sup> The treaties with

<sup>9</sup> Trade with China did not yield the profits expected, and in the earlier half of the nineteenth century the British mercantile community put pressure on its own government to force the Chinese to buy British goods. K. M. Panikkar, *Asia and Western Dominance*, p. 182 (George, Allen and Unwin, London. Third impression).

these powers developed through interpretation of privileges and prerogatives into a special body of international law controlling practically every aspect of Chinese life. China was parcelled out into British, French, Russian, German and Japanese spheres of influence, and the United States gate-crashed with the demand for an "open door" policy and equal opportunities for all. The treaty powers had the right to have "settlements" and "concessions." This created small bits of territory in many parts of China from which the authority and jurisdiction of the Manchu government were ousted, and which in some cases turned into centres of every kind of illegal traffic. The International Settlement at Shanghai became almost a sovereign city-state, and a Great Power in the Far East because of its banks and commercial houses. The British had their own High Court here, and from "settlements" generally appeals were made to courts in the respective European capitals. Besides the "settlements" and the "concessions," different foreign powers controlled the great inland waterways, and fleets of gun-boats patrolled the Canton River and the Yang-tse.

After the Treaty of Shimonoseki, in which the Japanese demanded a heavy indemnity, foreign powers began to insist that China should take loans from them to pay the indemnity and to develop her resources. These loans were covered by revenue from customs and salt, and in this way the administration of the customs went entirely into foreign hands, and became almost an international service. Concessions were demanded for the construction of railways. An uglier business was the export of Chinese labourers to San Francisco, to the Portuguese and Spanish possessions, to South Africa and to Australia. This began in 1847 and had all the inhuman qualities of a slave trade.<sup>10</sup>

In all countries dominated by imperialist powers, and even where, as in India, direct government was established, everything was done to keep the dominant classes in power. About two-thirds of India was under the British government, the remainder under Indian princes. In British territory the landlords, who comprised the upper classes, were supported as far as possible, and educated to be loyal to the government.

<sup>10</sup> Panikkar, *op. cit.*, pp. 166-200.

The Indian princes were entirely dependent on the might of the British Raj, and so long as they were loyal, they could do what they liked within their territory. It was only when they went too far that action was taken against them. The Indian mercantile community had been the first to establish relations with the East India Company, and gradually enlarged its share in the import and distribution of goods. Resistance to foreign rule, after 1858, began with lawyers and spread gradually to the educated members of the middle classes who did not have a stake in the existing political and commercial system. They demanded more opportunities and more rights for themselves, and asked for a policy more closely coordinated with the actual needs of the people. They created a public opinion through newspapers and speeches, and themselves assumed leadership. Their opposition was directed mainly against the government, but all those Indians who supported the government also became targets of attack. In those countries where the imperialist power had maintained in appearance all the authority of the indigenous ruler, nationalists had to fight both the ruler and his supporters and the imperialist power which used them as its tools. To this category belong Egypt, Iran and China. The task of the nationalist was much more difficult here, both intellectually and in practice. He could not state his objectives clearly without creating opposition within his own people and preaching a type of reform that could easily be interpreted as preparation for a civil war. He could not identify his opponent, and he was never sure, in any action taken against him, whether his own rulers were the principals or the agents. Education that came as a part of imperialist domination, as we shall see later, made matters worse.

To return to the "West." The organisation of elementary and secondary education, which began in the previous period, was now completed. In the United States, after a struggle during the first half of the nineteenth century, elementary education was given a purely secular character, and the tax-supported state school, free and equally open to all,<sup>11</sup> was evolved. It took its place as the most important influence in national life, maintaining the spirit of democracy and advancing

<sup>11</sup> But segregation of negroes has continued throughout, and is still a problem.

public welfare. In Great Britain, it took some time to bring under a rational system the education being given by different agencies. The Elementary Education Act of 1870 was meant "to complete the voluntary system and to fill up gaps", not to supplant it. In 1891, an Act made elementary education quite free, and placed it within the reach of every child. At the same time, secondary education was also developed. The great change in the administration of education was the creation of a Board of Education, with a President and Parliamentary Secretary, in 1899.

We have seen that Prussia was the first European country to prepare an Educational Code, and make education the responsibility of the state. Subsequent educational history is the struggle of new ideas and new institutions to obtain official recognition. In secondary education, a very wide latitude was allowed to different states and to different concepts of education, and this has continued till our own times. Quite another policy was followed in France, where Napoleon, by the law of 1806, made education a state monopoly. In 1833, the municipalities were obliged by law to maintain schools and pay the teachers, and the foundations were laid for compulsory primary education. The whole of France was divided for the purposes of educational administration into sixteen academies, each under a rector with an academy inspector for each department. Other European countries followed their own ideas in organising the system of education, some showing particular attention to one aspect, some to another. In Austria, Otto Glockel lent the authority of the state to the idea of educating children through creative activity, Belgium developed instruction in domestic and rural pursuits, and in Denmark Folk-schools were set up.

Higher education developed side by side with elementary and secondary education. But the scientific discoveries and technical inventions of this period cannot be treated as a result of organised higher education. In fact, they overshadow it almost completely. It was only by degrees that universities and technical colleges assimilated the ideas and the techniques which were the fruit of individual effort.

The system of western education spread all over the world along with political influence and commercial relationships.

Its extent and forms varied. In India, under pressure from a vocal section of both Indian and British opinion, English was made the medium of instruction, and universities and colleges were established, following as closely as possible the appropriate British models. In China, side by side with economic exploitation, there were attempts at cultural domination also. Missionaries from different European countries took advantage of the authority and prestige of their country to establish missions for education and conversion, and they have been accused of buying children from needy or starving parents. Often the missionaries went into the interior, and if anything happened to them, the country to which they belonged used it as an excuse for furthering its own political and commercial interests. But missionary work did not make much headway, so that after the Boxer rising (1900), official examinations were suspended as punishment in all towns where missionaries had been molested. This was a way of inducing the Chinese to leave their own educational institutions and study in those established by missionaries.

Education of the western type penetrated Egypt and west Asian countries, and universities and colleges were established following as closely as possible particular foreign models. This enabled an easy flow of ideas, and the minds of all those who received the new education fell completely under the spell of the "West". In China, there were missionary schools and universities on the American model. In Egypt, Syria and Turkey also foreign educational institutions were established. They had great prestige and their diplomas and degrees, apart from being guarantees of competence, were also the hall-mark of culture.

In the western world, the spread of education, specially of technical education, the tremendous development of the means of communication, the output of newspapers, magazines, books make it impossible to summarise the advancement in particular branches of knowledge and in general knowledge. But one cannot easily dismiss the criticism that this period produced no works of genius, only a multiplicity of small achievements. Darwin's *Origin of Species* (1859) became an epoch-making work, largely because of the misapplication of the idea of biological evolution, and Mendel's study of the principle of heredity initiated scientific investigation in a new



field. In medical science, the cooperation of a number of scientists all the world over yielded important results. The malaria germ was isolated by Laveran (1880), the anopheles mosquito was discovered to be the carrier of malaria by Grassi (1900), and Pasteur (1822-1895), Koch (1843-1910) and a few other scientists discovered the germs of tuberculosis, diphtheria, cholera, hydrophobia, bubonic plague, typhoid, syphilis and yellow fever, and the methods of curing and immunising against these diseases. The electron theory was formulated by Lorentz (1892), Rontgen detected the X-rays (1895), Pierre and Marie Curie discovered radioactivity and isolated radium, Max Planck (b. 1858) put forward the Quantum theory (1900) and Einstein his Special Theory of Relativity. The Quantum and Relativity theories suggested lines of thought that are still being explored, but during this period they remained in the domain of science and were not assimilated by philosophy. Wilhelm Wundt (1832-1920) founded modern experimental psychology, and Sigmund Freud drew frightened attention to the subconscious element in human nature. Of the value of the advancement in the natural and physical sciences there can be no doubt, but the balance of profit and loss to man is still being worked out.

## IV

Human needs can be reduced to a minimum, and they can be multiplied indefinitely. Civilisations are almost invariably judged by the number of what they consider to be essential needs and the means they adopt to satisfy them. This is not a wrong criterion. People who want only the things that are necessary for survival would be people who do not think of anything beyond survival. Their imagination, their aptitudes and abilities would be undeveloped. They would be more animals than men. But it is also possible to go to the other extreme, to multiply needs to such an extent that the distinction between the essential and non-essential is obscured. The number of artificial wants can become so large that men are unable to use their judgement, they lose their balance and all idea of purpose. This happened again in the nineteenth and twentieth centuries.

Ever since the exploitation of the discoveries of the scientist for commercial and profit-making purposes began, the number of needs began to increase. In the second half of the nineteenth century, and particularly after 1870, the expansion of industry and trade depended on needs being artificially stimulated, so that the goods produced could be consumed. Skill in selling became as important as skill in production. Competition was the fundamental principle of economic life, and its intensity increased with the number of goods. Survival was a problem for those already producing and marketing goods; and the struggle was continuously reducing their number. On the other hand, there were more and more people joining in the struggle. They were assured of success because of some method of operation discovered, or because of an invention that would satisfy old needs in a better way or create a new need.

We cannot describe here the skill that went into the making of the vast variety of goods with which markets in the west and in some other parts of the world were flooded. We shall only note the basic discoveries, inventions and achievements in the fields of steel manufacture, in the use of power, in transport, communications, armaments. Perhaps the most important thing to remember is that industry became increasingly dependent on science, and began, therefore, to take keener interest in promoting and financing scientific research.

The process developed in 1857 by Bessemer, and named after him, of making steel by means of an oxidising blast was of tremendous importance, and increased considerably the value of iron. A further process, evolved in 1878, for removing phosphorus from iron ore, helped in the manufacture of steel by making phosphorus available. So far, steel could be made only in small quantities and was expensive. Bessemer's process was a means of converting cast-iron cheaply and on a large scale into "mild" steel. It led to all manner of engineering improvements. Lighter and cheaper machines could be made, steel could be used for rails, bridges, buildings.

Petroleum began to be used for commercial purposes from 1859, and in the refined form of petrol it became the source of power for the internal combustion engine, first manufactured in 1886. The diesel engine, invented in 1895, could run on

crude oil, and was a considerable improvement because it made the internal combustion engine much cheaper to operate. The first dynamo, the symbol of a new age, was made in 1867.

Ten years later, a waterfall was utilised to generate electricity. With it came the equally important discovery of the means by which electricity could be transmitted over long distances and the establishment of the power-station. This enabled the supply of power wherever it was needed, and the provision of light and of the many amenities which electricity has made available to mankind. Edison made the bulb in 1879, and the process of making it prepared the way for other discoveries of great scientific and industrial value. The first electric tramway was built in 1879, and in 1888 was invented the induction motor for use with alternating currents. Electricity thus became an essential element of civilisation.

Basic events in the development of the means of transport were the invention of the modern type of bicycle with the free-wheel (1876), the four-stroke internal combustion engine for the automobile (1887), which was made really useful by the pneumatic rubber tyres, first made in 1889. Experiments in flying were being made throughout the nineteenth century. In 1903, the first aeroplane was flown successfully and the first dirigible balloon, known as the Zeppelin, in 1906. In communications, the main developments were the laying of submarine cables, first from Dover to Calais (1851), and then across the Atlantic (1865-66). The telephone was invented by Bell (1876), and was based on the discovery that vibrations on a sensitive tin plate, caused by resonance of vocal chords, could be converted into a fluctuating current and reproduced on a second tin plate. Another series of experiments led to the invention of wireless telegraphy by Marconi in 1895.

In the manufacture of armaments, the introduction of the principle of rifling (1855) increased the range and accuracy of guns, while the repeating rifle (1860) and the machine-gun (1862) made fire power more effective.

What impresses the imagination much more than the basic inventions, of vital importance to science and industry, are such things as the gramophone, the dry plate camera, the motion picture. But they are too many and too well-known to be described here.

## CHAPTER XI

### THE WORLD WARS AND AFTER

#### I

IF WE look for the exact time when European imperialism reached its zenith, we may come to different conclusions, and an examination of the situation in Europe between 1870 and 1914 might reveal that the danger of a war did not appear remote enough at any time to create full confidence in the maintenance of peace. But if we consider not individual states or groups of states but the European political system as a whole, it may be said that expansion and consolidation continued up to the outbreak of the war in 1914. At this point the system begins to break up. If the war had had a known and definable purpose, its results might have counter-balanced the shock. But the peace settlement, when it came, created further problems and grounds of conflict. The interval between the wars, full of depression and disillusionment, was used more to modify or reject the peace settlement than to build the foundations of security. Another war gradually came to be accepted as inevitable, and finally broke out with the invasion of Poland by Germany in September 1939. The reason why Germany would have to go to war, and what Germany would aim at achieving had been outlined with an ominous frenzy by Hitler in his book, *Mein Kampf*, in 1923. He was not believed, and if he proved to be a madman, he was not altogether a false prophet. He did, however, provoke a war, and this war, again, did not lead to the building up of a more durable political system. In fact, we are still suffering from the consequences of a peace settlement which embodies the strategy of the next world war. In this final chapter of world history, we, therefore, treat the period from the outbreak of the war in 1914 till the establishment of the People's Republic of China in 1950 as one unit. It may appear, a decade or so later, that the events and policies after 1950 were the continuation of a process which began in 1914. Or it may be obvious that the establishment of UNO and the resurgence of the

Asian peoples marked the beginning of a great and healthy change.

The Archduke Ferdinand of Austria was assassinated at Sarajevo on the 28 June, 1914. Within a month diplomats, war ministries and General Staffs had created a situation in which the original cause was forgotten, and Austria, Russia, France and Germany decided to meet their commitments of defensive and offensive warfare. Great Britain declared war against Germany only when German armies had invaded Belgium, and violated the treaty of 1839, which guaranteed the neutrality and integrity of Belgium. France, Russia and Great Britain were ranged as Allies against the Central Powers, Germany and Austria. The Ottoman Empire joined the Central Powers towards the end of the year, and Bulgaria in October 1915. Italy declared war against them (after failing to obtain territorial concessions from Austria) in May 1915, and Roumania in August 1916. America intervened on the side of the Allies in April 1917, while the Russian revolutionaries made a separate peace with Germany in March 1918.

War was declared because of the obligation to do so under the terms, known or secret, of treaties and alliances. It was not based on any policy and did not follow any plan. Even the Schlieffen Plan did not envisage more than a swift and decisive defeat of France. German statesmen as well as generals wished to avoid a war on two fronts, and both hoped that Great Britain would keep, or somehow be kept out of a central European conflict. The whole strategy of the war had to be planned after hostilities had begun. Particularly on what are known as the Western and Eastern fronts in Europe, it soon degenerated into a desperate struggle for the achievement of small ends at a horrible and unnecessary cost in human lives.

The war was fought in central and south-eastern Europe, in the eastern and south-eastern territories of the Ottoman Empire — Iraq and Arabia — on the sea and, towards the end, in the air. Each side hoped to win it by exhausting the other's man-power and industrial resources, and by cutting off the supplies of food. The task of the British navy was to blockade Germany, and though Germany had collected stocks of food, they could suffice only for the short war that the German General Staff had in mind. Great Britain and France

had the seas open to them and could get supplies from abroad. The Germans attempted to neutralise this advantage in 1916-17 by using their submarines. They did considerable damage, but the indiscriminate sinking of ships brought the United States into the war against them. Russia was the first to break down, owing to defeats at the front, gross inefficiency in the administration of the army and socialist and revolutionary activity. The revolutionary government of the Bolsheviks signed the Treaty of Brest-Litovsk on 3 March 1918. Roumania was the next to collapse and make peace with Germany (7 May 1918). But by September of the year, the Central European powers and their allies were also nearing exhaustion. Bulgaria asked for an armistice (30 September). The Austrian Empire began to disintegrate in October, the Czechs and Yugoslavs declaring their independence, and an armistice was signed with the Allies on 3 November. The Germans asked for terms a few days later, and hostilities ceased on the western front on the 11 November 1918.

The war was not a part of any policy of expansion. It did not have any aims. This made it all the more necessary to make it a war of ideals, ideals of such fundamental value that millions of lives could be sacrificed for them. For the Allies it was a war for democracy, a war to end war. President Wilson of the United States enunciated Fourteen Points when his country was about to join in the war. He took at their word those who claimed to be fighting for ideals, and attempted to bring into the negotiations as well as the treaties themselves the element of straightforwardness and fair dealing which he thought necessary to give a moral basis and political stability to the peace settlement. But he could make no impression on the hardened diplomats of Europe. The League of Nations was established, but the peace settlement was the result of negotiations where idealism found no place and reasonableness was often sacrificed to obstinacy. While bringing one war to an end, it set the stage for another.

In the Treaties of Versailles, Germany was declared to have been guilty of causing the war, condemned to pay reparations, deprived of territory, and obliged to deliver up her navy and merchant marine. A maximum of 100,000 officers and men was fixed for the army. She could have no heavy armaments,



no air force. It made no difference to the Allies that Germany had become a democracy, and a government that was the best guarantee against militarism was made to suffer the punishment for the alleged crime of militarising Germany. In fact, German democracy could not live down the dishonour of having come with the peace settlement, and could not, when the time came; resist those who attacked the settlement. The Allies provided Adolf Hitler all the material he needed for transforming his madness into eloquence.

The foundations of peace were further undermined by the attitude of other nations to the revolutionary government of Russia during the last phase of the war. The inefficiency of the Tsarist government had all along been a cause of anxiety to the Allies. When, early in 1917, the Tsar abdicated and a Provisional Government was established, the Allies hoped the situation would improve. But the new administration also proved incompetent, and an offensive begun in June failed. The socialists and revolutionaries in the Petrograd Soviet of Workers' and Soldiers' Deputies now acquired a decisive influence. They had all along been pressing the Provisional Government to follow a radical policy. By its Order of the 14 March, this Soviet deprived army officers of all administrative authority, transferring it to committees elected jointly by officers and their men. This Order was countermanded by the Provisional Government, but none the less administrative authority was exercised by the new committees. On the 14 April, Lenin arrived at Petrograd, and though his first attempt to seize power failed, the influence of his party, now known as the Bolsheviks, because it formed the majority among the socialists in the Petrograd Soviet, rapidly increased. On 6 November (October 24, according to the old Russian Calendar) the Bolsheviks took possession of all government offices and arrested the members of the Provisional Government. The Second All-Russian Congress of Soviets approved these measures and handed over the government to the Bolsheviks (7 November 1917).

We shall discuss later the organisation and policies of the new government. What concerns us here are the reactions to its establishment among the European powers and the United States, because they bred a suspicion and distrust which by degrees created a world problem.

Immediately after acquiring power, the Bolshevik government appealed to all belligerent states to open peace talks (7 November 1917). This was followed by a proposal to end the war on the basis of no annexations and no indemnities (22 November). Only the Germans agreed to negotiate, and so the Bolsheviks published all the secret treaties between the Tsarist government and the Allies (5 December onwards). The Germans were willing to talk because the military situation was in their favour. On the ground of the right to national self-determination, they demanded from the Bolsheviks the cession by Russia of the Baltic States, Poland and the Ukraine. Ultimately, by advancing on Petrograd, the Germans forced the Bolshevik government to accept their terms (Treaty of Brest-Litovsk). France had invested large sums in the development of Russia's resources. The Allies felt that peace with Russia would enable Germany to concentrate all her forces on the western front, and the Bolsheviks were suspected, among other things, of being more favourably inclined towards Germany than towards the Allies. Independent governments had already been set up in Lithuania, Moldavia, the Don area and Ukraine, and the British and French utilised opportunities to encourage and support the opponents of the Bolsheviks. An expeditionary force, consisting of British, French and American contingents was landed at Murmansk (May 1918). It occupied Archangel (August), and a puppet government for north Russia was set up. After the armistice, the British and Americans ceased to take interest in the expedition, offering mainly financial and moral support, but the Allied forces did not withdraw till October 1919. Elsewhere also, war was continued in order to harass the Bolshevik government. Over a month after the armistice had been signed, Odessa was occupied for a time by the French, and Baku in the Caucasus region and Irkutsk in Siberia by the British. These actions did not have much military significance, but they showed an attitude of hostility. This was confirmed by the setting up of independent states along the northern and western boundary of Russia — Finland, Esthonia, Latvia, Lithuania, Poland, Czechoslovakia, as a part of the peace settlement, and French support of Poland in the war with Russia (1919-1920). Hardly anything was done in the post-war period to reassure the rulers of Russia,

and they, on their part, through propaganda and directives to the Communist parties in the different countries of Europe attempted to undermine political and economic stability.

Apart from Germany and Russia, the new states created in accordance with the principle of self-determination became disturbing elements. There was a dispute between Poland and Lithuania over the city of Vilna which could not be amicably settled. Poland and Czechoslovakia quarrelled over the division of the Teschen district, Austria and Hungary over Burgenland, Italy and Yugoslavia over Fiume. In no case did the issue itself bear any reasonable relation to the agitation it caused.

The states created by the peace settlement, such as Poland and Czechoslovakia, were to have solved the problem of minorities. But no territorial division of central and south-eastern Europe was possible which would produce states having populations belonging only to one race, speaking only one language and believing in and practising only one religion. Minorities in the new states remained a serious, almost insoluble problem.

Perhaps the worst feature of the peace settlement was that it embodied the expansionist and aggressive policies of the Allies themselves. Open and secret negotiations carried on during the war as a means of creating solidarity, winning friends or undermining the power of enemies led to commitments that had to be honoured. In west Asia, the Hedjaz was given to Sharif Husain of Mecca, and a patch of barren territory was left to Turkey. The rest of the Ottoman Empire was divided up between the British, the French, the Italians and the Greeks in the Treaty of Sevres (1920). This partition, after the armistice had been concluded, was about the most disgraceful part of the peace settlement. The negotiations were followed by a Greek attack on Smyrna (14 May 1919) with the assistance of the British navy and the blessings of the British Prime Minister, Lloyd George. The Turkish nationalist leader, Mustafa Kamal, obtained the assistance of the Bolshevik government, and after an advance into the interior almost up to Angora, the Greek forces were defeated and thrown back to the sea with well-deserved ignominy (August–September 1922). The Treaty of Lausanne, which followed (24 July 1923) had all the stability of a just settlement.

The first great shock to the system of security being established in Europe was the withdrawal of the United States from active participation in European politics. A guarantee had been given to the French in June 1919, that Great Britain and the United States would come to their help in case of an attack by Germany, to induce them not to demand the extension of their frontier up to the Rhine. The U.S. Senate refused to ratify this agreement and the whole Treaty of Versailles was rejected. This made the French more exacting in their demands on other issues, specially the payment of reparations, and was one of the causes of their invasion and occupation of the Ruhr, early in 1923. The United States took up questions of more interest to them than the resolution of conflicts in Europe, and at a conference called together at Washington towards the end of 1922, (a) a Four Power Treaty was signed by the U.S., Great Britain, France and Japan, in which the rights to the insular possessions of each in the Pacific were guaranteed; (b) two treaties ensured the integrity and independence of China, emphasising the principle of the "Open Door"; and (c) the relative naval strength of Great Britain, the United States, Japan, France and Italy was fixed in the proportion of 5·5-3·1·67-1·67, while an undertaking was given that no warships of over 10,000 tons would be built for the next ten years.

Conferences at Genoa and Rapallo (April-May 1922) failed to improve the European situation, specially because of the attitude of France, but brought Germany and Russia closer together. What this meant was not realised then and for many years later. The German General Staff used Russia as an experimental centre for new tactics and weapons, and Russia got experts for the training of her officers and soldiers. This "friendly" arrangement, maintained for about ten years, was in fact the first step in preparing for the next war. It was an arrangement the details of which were not known fully even to the German Foreign Office, which followed its own policy, and it forged links between the German and Russian General Staffs that were not broken till the purge in Russia, which began in 1936.

Meanwhile the German mark, which had fallen considerably in value as a result of the war, the demand for reparations, the

general economic condition and the occupation of the Ruhr, began to sink rapidly till it became almost worthless. This was disastrous for German economy, and indirectly for the whole economy of the western world. So business was separated from politics, and while the obligation to pay reparations was acknowledged and a schedule was drawn up fixing the dates and amounts of the payments, Germany was given a foreign loan of 500 million dollars. This was the Dawes Plan (1924).

From this time the international situation in Europe began to improve. Proposals for the pacific settlement of disputes could be discussed, and treaties of mutual guarantee and arbitration and of mutual assistance signed (Locarno, October 1925). Next year, Germany was admitted to the League of Nations, and in 1928 the Kellogg-Briand Pact, renouncing aggression, was signed by a large number of states.

The victory of the Allies, as appeared from the partitions and annexations of enemy territories, from the mandates and from all attempts to secure advantages through the peace settlement, was only one aspect of the situation. In fact, the price paid for victory almost balanced the gains. Apart from losses of men, the financial and economic losses were very heavy, and the reparations demanded from Germany were a coin that turned false the moment it was used. Besides, the promises made to win support for the war effort could not be ignored. There were specific promises made to peoples, such as the Indians and the Egyptians, and there was a general commitment to foster and promote democratic ideas, self-government, self-determination and the practice of fair dealing. Governments, as governments, would have done their best to evade the fulfilment of promises and turned their guns on importunate friends when there were no enemies in the field. But the war had demanded sacrifices from the masses of the people, and many whose consciences had been awakened became more and more insistent that the ideals for which they had fought and suffered should become the aims of political policy. Such people were vocal and sometimes also influential, but it could be argued that even they would not have mattered much or for a long time if European economy had not been profoundly shaken by the war.

Among the countries under some form of imperialistic domination, Egypt, India and China became the most serious problems for the imperialist powers concerned, and their economic and social reconstruction became symbolic of freedom for all subject peoples.

Egypt was declared a Protectorate on 18 December 1914, and a day later the Khedive Abbas Hilmi was deposed. The British had to concentrate here what forces they could spare, and to provide locally for the labour and the material required for the defence of Egypt against Turkish attacks. With the end of the war the suppressed feelings of the people found expression, and when Saad Zaghlul Pasha and other nationalist leaders were deported to Malta because they insisted on Egypt being represented at the Peace Conference, there were risings and deep unrest. The British could not just withdraw from Egypt, leaving the country free to follow its own policy. It was strategically of vital importance, and in peace time it appeared necessary that the Suez Canal should be protected against possible encroachment. But Egypt could not be condemned to perpetual subjection on account of its strategic and economic importance, and the negotiations and decisions from 1919 till the achievement of complete freedom by the Egyptians show a gradual relinquishment of British claims. Egyptian independence, modified — or perhaps nullified — by certain guarantees was foreshadowed in the Milner Report in 1921, a year later the Protectorate was declared at an end, and in April 1923, a constitution was promulgated according to which Egypt would be governed by ministers responsible to a legislature. This did not mean, however, that Egypt would be released from the meshes of imperialism — capitulations, extra-territorial rights, financial domination — and the situation was further complicated by the insistence of Egyptians that Sudan should be recognised as a part of Egypt. By 1927, differences of interest between the Khedive — called King after 1922 — and the people came to the forefront. The constitution of 1923 was abolished and another, more favourable to the royal interest, promulgated in 1930, and ministries under the influence of the king were formed. Ultimately, the constitution of 1923 was restored, a treaty between Great Britain and Egypt was signed, agreement was reached in regard to



the abolition of capitulations, and Egypt was made a member of the League of Nations. With the beginning of another war, however, the situation changed again.

Syria was given over as mandated territory to France against the declared wishes of the people (25 April 1920). Attempts to divide up Syria into separate units failed, though Lebanon was made into a separate republic. There was continued unrest till 1936, when France made a treaty with the nationalist government of Syria, fixing a date for the termination of the mandate, and for the admission of Syria into the League of Nations. The British were more successful in Iraq, though popular feeling against the mandate was strong. Emir Faisal was made king, the mandate was transformed into a treaty of alliance (1924). Three years later the independence of Iraq was recognised in return for new air bases, and Iraq was admitted to the League of Nations in 1932. The Baghdad Pact of 1937 between Turkey, Iraq, Afghanistan and Iran was the first symptom of a new spirit of solidarity in West Asia.

The national movement in India continued to gather strength after the Indian Councils Act of 1909 had come into force. There were many reasons for this, but the principal causes were the increase in confidence because of Japanese success in the war against Russia and in the genuine desire of a large number of educated Indians, who felt themselves equal in every way to their rulers, for self-government. During the first two years of the war, partly because of the efforts of Mahatma Gandhi, there was no open agitation against the government and India supplied both soldiers and labourers for service in the campaigns in different parts of the world. But slowly the attitude changed. The Indian National Congress and the Muslim League came to an agreement and their joint demand for Home Rule led to a promise by the British government to introduce responsible government in India. A scheme of limited self-government was presented to Parliament in July 1917, but before it took the form of an Act, the Government of India passed the anti-sedition measures known as the Rowlatt Acts, and General Dyer perpetrated the massacre of Jalianwala Bagh. This created a most unfavourable atmosphere, the reforms were rejected by the Congress and Mahatma Gandhi launched his *satyagraha* (non-cooperation) campaign.

The Muslims, who were indignant at the British policy towards Turkey, joined him, and for a time it appeared as if the movement would succeed and India would get *swaraj* (self-government). But the risings of the Akalis and the Moplas and mob violence at Chauri-Chaura convinced Mahatma Gandhi that the movement had become violent, and he ordered its suspension. This created a feeling of frustration and bitterness which led inevitably to disunity and disintegration of the nationalist movement. By 1930, however, a staunch body of nationalists within the Congress, under the leadership of Jawaharlal Nehru, had formed the Independence of India League and forced the Indian National Congress to declare complete independence as its demand. There was another country-wide Civil Disobedience campaign, organised and led by Mahatma Gandhi. He was arrested (5 May 1930), but released nine months later because the Viceroy, Lord Irwin, desired the cooperation of the Congress at the Round Table Conferences being held in London to make them representative. The Conference failed to produce any result, the Civil Disobedience movement, suspended in 1931, was revived in 1933 (15 July). Two years later the Government of India Act was passed, which gave much wider autonomy to the provincial governments and laid the foundation for an All-India Federation at the Centre. After some misunderstandings in regard to the powers of the governors had been removed, the Act went into effect and Ministries in seven out of the eleven provinces were formed by the Congress. But before these governments could achieve significant results, war began in Europe. The Congress Ministries resigned because India had been made to declare war without the people's representatives being consulted.

The developments in China from the revolution of 1911 to the Japanese occupation of Manchuria and the outbreak of the war with Japan in 1937 present a tangled series of events. The imperialist powers looked with doubt and not a little anxiety at the appearance of democracy in China. They desired the continuation of the Manchu government, or failing that, the rule of a "strong" man with whom they could deal directly and without unnecessary publicity. Their hold on the country could be loosened only by unity of purpose among the

Chinese people, efficient organisation of human and material resources and prudence and foresight in the choice of the issues on which to give battle to imperialism. Yuan Shih-k'ai made the grave mistake of taking a big loan from the Allies to carry on the administration and of attempting to establish personal rule. On the other hand, war in Europe enabled Japan to take the lead in extracting the utmost advantage from the political and economic prostration of China. Japan declared war against Germany (22 August 1914) and after occupying Tsingtao presented the Twenty-one Demands, which were intended to consolidate her position as well as bar the way to the acquisition of Chinese coastal territory by other powers. In 1917, she exacted special rights in Manchuria and Inner Mongolia. At the Washington Conference she suffered a reverse. All German territories and assets seized during the War had to be returned to China, and the Anglo-Japanese alliance of 1902 was dissolved, to be replaced by a Nine Power Treaty guaranteeing the integrity and independence of China. But disorders and conflicts in China could not be brought under control, and only in the south was there a government that could be called a public institution.

As mentioned above, all parties united under the leadership of Dr. Sun Yat-sen. Chiang Kai-shek succeeded to his position on Dr. Sun's death in 1925. He extended the territory under Kuomintang rule northwards, and established his capital at Nanking. But he was forced by the conservative elements, who wanted only a change in the government that would give them all the benefits of power without any social changes or economic reforms, to dismiss his Communist advisers and break with the Chinese Communist Party (1927). This break was followed by almost eight years of civil war. The Communists, under the leadership of Mao Tse-tung and Chu Teh, organised the people and the economy of the Kiangsi and Fukien provinces. When it was no longer possible to resist the Kuomintang nationalist attacks, they marched 5,000 miles to Shensi in the remote north-west, a feat of heroic courage and perseverance that deserves to be ranked among the great achievements of history. At Shensi they entrenched themselves firmly, and not only kept away the nationalist armies but converted the peasants of neighbouring areas and carried through land reforms.

In the meantime, alarmed by the possibility of the unification of China, the effectiveness of the boycott of Japanese goods and the recognition of the Nanking government by 12 states (1928), Japan decided to take the offensive. Manchuria was invaded and rapidly occupied (1931-32), Shanghai was attacked early in 1932, to force the Chinese to abandon the economic boycott and to give Japan a position of pre-eminence in the international zone. It seems to have been felt by the other powers that the expansionist tendencies of Japan could not be resisted without armed conflict, and the lesser evil was to condemn but at the same time condone Japanese aggression in China. Japan replied to the criticisms in the Report of the Lytton Commission and in the League by withdrawing from the League (March 1933). In 1936, she presented what are known as the Seven Demands<sup>1</sup> and in July 1937, began an undeclared war with the purpose of occupying the whole of China.

The occupation of Manchuria by Japan was an act of violence and injustice. The reaction of the League and the powers guiding its policies showed a tendency to come to terms with the aggressor, and thus opened the way for other acts of aggression. It could, therefore, be said that the occupation of Manchuria was the beginning of the Second World War.

To states that were dissatisfied with the peace settlement, Japan's success was an all-clear signal. Italy was counted among the victors, but had gained very little to balance her losses in men and resources, and economic troubles following the cessation of war created the possibility of Socialists or Communists coming to power. Benito Mussolini (1883-1944), a socialist in his early political career, formed the Fascist party, and raised himself to the position of Dictator with a combination of bravado, bluster, shrewdness and violence. His small-scale experiments in power politics and his brave speeches gave an impression of great strength and resolution. But he did not achieve much success in extending Italian influence in south-eastern Europe, and the need he felt of

<sup>1</sup> These included employment of Japanese troops for eradication of Communists and Communism, employment of Japanese advisers in all branches of administration, autonomy of the 5 northern provinces already under Japanese occupation, etc.

striking the imagination of both friends and enemies did not allow him to follow a policy of safety and stability. In October 1935, he attacked Abyssinia and proclaimed the annexation of the country to Italy on 9 May 1936. Attempts to keep peace between Italy and Abyssinia had failed, and public opinion both in France and England had shown itself unwilling to accept any arrangement between the powers by which Italy would be satisfied at the expense of Ethiopia. The League Council had declared Italy the aggressor (7 October 1935) and a little over a month later, voted the application of sanctions against her. But hardly two months had passed after the Italian annexation of Ethiopia when the sanctions were discontinued. It was not a matter of surprise that Mussolini felt himself free to intervene in the Spanish Civil War, which began in July 1936, and to ally himself with Germany and later join the German-Japanese anti-Communist pact to form what came to be known as the Rome-Berlin-Tokyo Axis. This was the alignment of powers that led to another world war.

Of these three powers, it was Germany whose armed strength, industrial potential, competence and determination to upset the existing balance was of the gravest consequence. We have seen how the future of democratic government in Germany was undermined by the terms of the peace settlement in 1919. A socialist and liberal assembly was forced to accept the terms by a blockade which brought the people to the verge of starvation and by the threat of invasion. German national economy was strained almost beyond endurance by the fall of the Mark, by reparations payments and by the French and Belgian occupation of the Ruhr. The Dawes Plan (April 1924) and the Young Plan (December 1929) though intended both to enable Germany to pay reparations and bind her to a fixed schedule of payments, put Germany on her feet economically. She recovered from the consequences of the war-guilt clause of the Treaty of Versailles to the extent of being admitted to the League, with a permanent seat on the Council. But the Rhineland was not evacuated by Allied troops till 1929, and the Saar region till the end of 1930, and when the great depression came in 1931, a situation was created which a government that did not command the respect and loyalty of the people could not possibly save. The growth of the Nazi

party and Hitler's rise to power was due to many causes, and the most important single cause was perhaps the economic crisis and the inability of the government to provide employment. The Nazis used force to attain their ends without hesitation or scruple, and terrorised their opponents or silenced or removed them in different ways. They played upon fears and prejudices and national pride. But they would not have acquired as complete a domination as they did if democracy in Germany had not become a symbol of national frustration and defeat.

The first step in pursuance of the policy Hitler had in mind was withdrawal from the Disarmament Conference being held at Geneva and from the League of Nations (October 1933). Then followed a non-aggression treaty with Poland (January 1934), an attempt of the Austrian Nazis to seize power in Austria (July 1934), the recovery of the Saar Basin after a plebiscite (January 1935), denunciation of the clauses of the Versailles Treaty relating to German disarmament (March 1935) and the marching of forces into the Rhineland (March 1936). Protests against this action had the unexpected result of bringing about a naval agreement between Great Britain and Germany (June 1935) and straining Great Britain's relations with France. The following year Germany denounced the Locarno pacts, and this move was followed by a close alliance with Italy, and the formation of the Rome-Berlin-Tokyo Axis. Success urged Hitler to continue this policy, and Austria and Czechoslovakia were annexed in 1938 and 1939. By his treaty with Poland, his naval agreement with Great Britain and his occupation of Czechoslovakia, Hitler destroyed the system of alliances which France had built up for her security. Now he denounced the old pacts and offered to make new ones. He quarrelled with Poland, and came to an understanding with Russia which assured Russian neutrality in case of a war with Poland (23 August 1939). On 1 September, Hitler announced that German armies were returning the fire of Polish forces. A world war had begun.

In the balance of power in Europe, Russia occupied a decisive position. France sought after an alliance with Russia as a measure of security against Germany, and deliberately cultivated Russian friendship by political alliance and economic



assistance from the last decade of the nineteenth century. The Russian revolution meant enormous losses for France, but when other plans for ensuring security failed, a reversion to the old system of alliances was sure to follow. The first agreement, however, was between Russia and Germany, made at Rapallo (1922), and Great Britain, Italy and France recognised the Bolshevik government in 1924. The policy of fomenting disorders in capitalist countries created difficulties until Stalin enforced his policy of concentrating on making the revolution a success in the Soviet Union. In 1932, non-aggression pacts were concluded with France, Poland and the Baltic States, and the next year the United States recognised the Soviet Union and established trade relations. But the political situation forced the Soviet Union to plan large-scale armament, attempting at the same time to promote collective security through propaganda in the League, which the Soviet Union joined in September 1934, and in international conferences. The conclusion of an alliance with France and Czechoslovakia in 1935 signalled a reversion to the old system. But the response of Great Britain and France to the aggressiveness of Germany forced a change of policy. Perhaps there was a conviction that war was coming and Germany was sure ultimately to attack the Soviet Union. It was essential to gain time, because purges in the army had considerably weakened it. The Soviet Union, therefore, made a pact with Germany, and when Poland had been defeated, divided the country with Germany, thereby extending its frontier westwards (28 September 1939).

If it was the Soviet Union's intention to change the direction of German attack from east to west, it was successful. In April and May 1940, the Germans invaded Denmark, Norway, Belgium, Holland and France. The smaller countries were swamped, France asked for an armistice on 17 June after a spectacular defeat. But the German air force failed to win the air battle against Britain and help from the technically neutral United States came to Great Britain through administrative action and legislation. In return for air bases in the western Atlantic, the U.S. sold 200 destroyers to Great Britain (2 September 1940), and in March of the next year the Lend-Lease Act removed all obstacles to the supply of goods and

services to all countries whose defence was considered vital to the defence of the U.S. About the same time, German armies occupied the whole of south-eastern Europe and the island of Crete after an airborne invasion (March-May 1941). Then the Germans invaded Russia, and forced the British, the Russians and the Americans to combine. After the sudden attack of the Japanese on a front that extended from the Hawaii Islands in the Pacific to Malaya, the United States joined in the war, which now became a global conflict between the Axis powers and the Allies.

Towards the end of 1942, the Axis powers, who had been on the offensive and largely successful, began to lose ground. The Germans had advanced up to Moscow and Leningrad, but failed to capture them. Hitler staked his prestige on the conquest of Stalingrad, and lost (September 1942-January 1943). After that the Germans, who had suffered heavily in men and whose industry was being crippled by Allied bombings, were continuously in retreat. U.S. forces landed in Morocco and Algiers in November 1942, and advanced from this base into Sicily and Italy, which surrendered in September 1943. Allied forces had already landed in Normandy on 6 June, and gradually thrown the Germans back to their frontier. At a conference in Casablanca in January 1943, President Roosevelt and Prime Minister Churchill had decided to demand the unconditional surrender of the Axis powers, and in the Conferences at Teheran (December 1943), at Yalta in the Crimea (February 1945) and at Potsdam, over two months after the unconditional surrender of Germany, the United States, Great Britain and France on the one side, and Russia on the other, divided central and south-eastern Europe between them into spheres of occupation and influence. Germany, and its capital Berlin, was divided into a western zone, occupied by the U.S., British and French forces, and an eastern zone occupied by Russian forces. Communist governments were set up in the eastern zone of Germany, and Russian forces also remained in occupation of the countries allotted to them.

In east and south Asia, the Japanese advance seemed irresistible till the middle of June 1942. Then the tide turned. The Japanese had exhausted themselves fighting on a large number of fronts. While they were being dislodged from

Burma, Malaya and Indonesia, the U.S. air, naval and armed forces pressed upon the islands of Japan from the Pacific front. The Japanese cities of Hiroshima and Nagasaki were destroyed by atom bombs, used here for the first time. This forced a surrender (10 August 1945), but it was an act whose moral consequences could still prove catastrophic for mankind.

The close of war brought to the forefront the differences between the Soviet Union and the other allies. The differences were so acute and based on such deep-rooted suspicions that they turned into a cold war of bitter words, bad manners and direct and indirect support of Communist and anti-Communist parties wherever they happened to be contending for power. Russian forces were spread over a large part of central and south-eastern Europe and the Cominform, established in 1947 at Warsaw, maintained a strict control of the policies of Communist parties of all countries, whether they happened to be ruling or attempting to acquire power. Yugoslavia, which was Communist but desired to follow an independent policy was severely criticised, excommunicated, almost attacked. On the other side, the Marshall Plan was devised to build up the economy of democratic countries, and President Truman enunciated his doctrine of helping all peoples exposed to communist aggression. Soon after it had become known that the Soviet Union had manufactured atom bombs and possessed a stock of them, the United States, Canada and the democratic powers of Western Europe formed the North Atlantic Treaty Organisation to concert measures of security and defence (1949). There was civil war in Greece and China (1945-49), Communists attempted to oust the British from Malaya and the North Korean Republic, in 1950, marched its forces across the 38th parallel, fixed as the boundary between the North and South Korean States. All this happened after and in spite of the establishment of the United Nations Organisation. Because of the possible use of atom and hydrogen bombs, it seemed that civilisation and mankind would not survive in case of war between the Soviet Union as the leader of the Communist and the United States as the leader of the democratic countries, and for several years after the surrender of Germany and Japan the world remained in a state of terrified suspense.

In China, the Kuomintang nationalist government, which had established itself at Chungking in November 1937, appeared to have held out bravely against the Japanese. But a demoralisation had set in which peace and generous support from the United States could not check and the communists occupied Peking and established the People's Government of China in 1949-50.

India was the scene of bitter conflict between the Muslim League and the Congress. The Muslim League in 1940 asked for the part of the country where the Muslims were in a majority to be formed into a separate state, to serve as the "homeland" of the Muslims. However, in spite of this the British could not justify the continuation of their rule. Sir Stafford Cripps was sent out early in 1942 to negotiate an agreement with the Indian leaders. His mission failed and on 9 August, Mahatma Gandhi, as the spokesman of his people, asked the British to "Quit India." There was an upheaval almost all over the country such as threatened to upset the British administration. In 1945, the Cabinet Mission came to India with the definite object of making a final settlement. It did not succeed. Any agreement between the Muslim League and the Congress seemed impossible and the Interim Government formed in 1945 was unable to function properly. There were bloody riots almost all over north India, which appeared in some cases to be an attempt at extermination of one element of the population by another. This made partition inevitable, and on 15 August 1947, India and Pakistan became separate self-governing Dominions. India became a Republic in 1949, deciding at the same time to remain a member of the British Commonwealth of Nations.

In spite of this background, India played an outstanding part in the improvement of international relations. The Prime Minister of India, Jawaharlal Nehru, succeeded because of foresight, objectivity, well-directed sympathy, and faith in collective action through the United Nations in concentrating attention on the rights of subject countries and in asserting and carrying through policies of moderation and justice in cases of conflict. India was the first to recognise the People's Government of China (1949), and has since been active in emphasising a realistic approach to all problems of international politics. The Constitution of the Republic of India is the first

document of its kind in which the promotion of international peace and security, the maintenance of just and honourable relations between nations, and the fostering of respect for international law and treaty obligations have been made directive principles of the policy of the State.

## II

We have referred already to the effect of the development of organisation on beliefs during the nineteenth century. With the progress of industry and the increasing complexity of economic life, organisation became more and more important. Everything seemed to depend on it, and this dependence appeared to be both necessary and just. The first World War shook the confidence people had in organisation as the symbol and mainstay of civilised life. Organisation could make war more destructive, the subservience of the individual to the nation or the state more absolute, resistance to evil more difficult. But there seemed to be no escape from it, as there was no escape from the domination of the machine. The advancement of scientific knowledge and the vast number of goods produced through the application of science to industry strengthened the hold of organisation as an idea on men's minds. The function of belief was no longer to determine the purpose and the character of organisation. On the contrary, belief, and specially religious belief, was more and more absorbed in the attempt to find a place and a justification for itself within the existing system of political and economic organisation.

Let us first briefly review the position of institutional religion, Christian, Muslim, Buddhist and Hindu.

In the Christian world, the influence of the Roman Catholic Church continued to grow. Modernism, which may be considered a general term for all tendencies to look upon faith as a matter of opinion, was forbidden by the Roman Church in 1907. Truth was declared to be based on revelation, and revelation included not only the original gospel but the inspired teaching of the Church in later centuries. The Roman Church also continued to maintain its claim to being the one true church, and did not participate in attempts to discover a basis on which all Christians and all Christian churches could be

brought together. Roman Catholics have insisted on preserving their identity as a group whenever they have cooperated with other groups; and they have had their own separate organisations for welfare purposes among the workers and the youth. If in spite of this the number of Catholics and the influence of the Roman Church has been maintained or increased, it is because the Roman Church seems to offer the type of spiritual security which is needed most in a society where belief is disintegrating, and the individual has been left to discover truth for himself.

Protestant churches have a more elastic organisation and have shown more responsiveness to new ideas. But being basically individualist, the Protestant cannot give his religious sentiment a definite institutional form, and no Protestant church can offer the security of a fixed, absolute, unchanging belief. New ideas have been thrown out, new means of giving form and intensity to belief have been discovered. An example of this is the teaching of Karl Barth in Germany, shortly after the first World War. Barth revived the idea of the sovereignty of God. "God is all. Man is nothing. God judges. God saves. God never explains. Man's part is to bend his head humbly. . . . A grim message, but full of power, and it has had an immense influence not only in Germany but all over the non-Catholic parts of European Christendom."<sup>2</sup> But the characteristic feature of twentieth century Protestantism is the consciousness of disunity among the Churches, and the growth of a genuine desire at least for better feeling and more coordination. "The Lausanne Conference in 1927, and others since, have revealed not only a great desire for organic unity, but the actual existence of a very deep and strong unity in faith and purpose."<sup>3</sup> There have been missionary conferences from 1910 onwards, and another series of important conferences led to the constitution of the World Council of Churches in 1948. The conception of the One Holy Christian Church, comprehending all beliefs seriously put forward seems to be gaining more and more influence, and to envisage the Church of the future.

One means of estimating the power still possessed by institutional Christianity is to consider the number and

<sup>2</sup> S. C. Carpenter, *Christianity*, p. 144 (Pelican, 1953).

<sup>3</sup> *Ibid.* p. 164.



importance of such international organisations as the Catholic Employees, Catholic Union of Social Service, Catholic Workers' Congress, the Christian Democratic Political International, the Federation of Christian Trade Unions, the World's Student Christian Federation, the Y.M. and Y.W.C.A. These international organisations represent an extension of the work done by similar associations on a national basis, and "the Christian Youth Movements make an impressive picture when all their statistics are drawn together."<sup>4</sup>

It is, particularly, activity of this type that is missing in the non-Christian world generally. The Muslims have no church. Their orthodoxy is the opinion of the majority, which has no recognised means of enforcing adherence. But the way in which Muslims have held to their faith against the onslaught of imperialism and the undermining influence of scientific knowledge is quite remarkable. Turkey became a secular state under pressure of circumstances, and under Kemal Ata Turk's rule all forms of religion and religious feeling were frowned upon. Still, reverence for the faith and the desire to observe its institutional forms has remained and may become more active. In Egypt and India, the Muslims have been deeply concerned in vindicating their faith. An analysis of the ideas put forward in defence of Islam may not lead us to form a high opinion of the knowledge or intellectual calibre or philosophical consistency of Muslim thinkers and writers on religious subjects. Organisations such as the Ikhwan-al-Muslimin have resorted to a type of violence in word and deed which betrays both crudeness and immaturity, and the Qadiani sect in India has been the victim of both literary and physical aggression. In general, the Muslims can be said to have failed to define their position as against modern intellectual and social tendencies. Practice also varies from place to place and class to class. But the response evoked by the poet Iqbal in India is symbolic of the deep appeal Islam still makes to the Muslim, and it is quite possible that Islam might be the source of inspiration in the widespread regeneration of Muslim society.

Buddhism is now the religion of East and South-East Asia (excluding Indonesia), of Tibet and Ceylon. In Japan and

<sup>4</sup> M. P. Fogarty, *Christian Democracy in Western Europe*, p. 277 (Routledge and Kegan Paul, London, 1957).

China it has forms entirely different from those it took in Tibet or Burma, and it would be a mistake to consider them all together. In China, Buddhism is hardly likely to survive as a religion with any influence; in Burma it may maintain its position. There are signs of its revival in India, but that will take time. Of Hinduism it is difficult to say anything with confidence. The Hindu social system has suffered and recovered from many shocks, and Mahatma Gandhi's attack on untouchability as well as the disintegrating influence of western ideas may yet leave it basically unaffected. Dr. Radhakrishnan has defined its intellectual position and its qualities as a way of life. But the system itself is so deep-rooted that it can do without defenders and apologists. The question whether it possesses the spiritual resources on which the Hindu community can build its destiny cannot yet be answered.

This statement may appear strange when Hindu society could claim to have produced a personality like Mahatma Gandhi. But it seems necessary to raise and discuss this question. It will be of the greatest benefit to Hinduism and to India if the result of the discussion is the acceptance of Mahatma Gandhi's teachings and their continued application to social and moral problems as a fundamental element of Hindu belief. Mahatma Gandhi drew his inspiration from all sources, stamping upon all that he assimilated the quality of his own spiritual experience. He gave to his whole life the character of an experiment in the application of belief, with the whole of Indian national life as his laboratory. The purpose of the experiment was to know and live the truth. This itself places him both within and outside all religions, for he made himself the judge of truth and falsehood.

Mahatma Gandhi called the supreme truth, which embraced all life and all time, *ahimsa* or non-violence. *Ahimsa* is an old belief, probably animistic in its origin, of avoiding all acts that injured living things. In its practice, it was essentially negative. By combining it with *Satyagraha*, or struggle for truth, Mahatma Gandhi transformed it into a dynamic, revolutionary force. He was not a philosopher, or a stickler for exact definition. His conceptions were clarified, expanded, illumined by his continuous endeavour to make them come alive in the struggle for the attainment of truth. They cannot,

therefore, be explained as religious doctrines or moral ideals are explained, and it would be difficult, if not impossible, to understand them if they are taken out of the context of actual situations and events. A brief and rough outline of Mahatma Gandhi's beliefs would be:

- (a) Man was created in order that he might become in his own way the embodiment of truth.
- (b) If we think that what we believe is true, we must not only live according to our belief ourselves, but seek its realisation in society.
- (c) Violence is an evil and the greatest enemy of truth. In seeking the realisation of our beliefs in our personal life and in society, we must avoid violence as evil and sinful.
- (d) Suffering purifies and ennobles. Since there is some degree of falsehood in all of us, we can attain to truth only by purifying ourselves. Suffering is not to be desired for its own sake, but we should endure what suffering we must in affirming and upholding the truth.
- (e) Just as there is a degree of falsehood in all of us, there is also a degree of truth. We cannot make the truth prevail in the hearts of those who seem to be our opponents unless we admit that we also can be in the wrong. Truth can be served only by one who has the humility to admit his own errors and faults, the openness and generosity of mind to acknowledge the virtues of others, and the courage and determination to endure suffering for the assertion and realisation of what he holds to be true.
- (f) Hatred is a form of violence, and lack of concern for others is indifference to truth. We must love those who are against us as those who are with us.
- (g) The evil that we see in this world is to be associated with systems; the persons representing these systems are deluded brethren whom we must convince and convert by persuasion and by willingness to suffer injustice at their hands.
- (h) All the good that we desire for mankind can be attained through an understanding and practice of *ahimsa*.

Men of reason and goodwill all the world over would agree that all these propositions are true. They would classify them as religious or moral doctrines worthy of being practised by all who have a religious bent of mind or moral idealism. Mahatma Gandhi's contribution to the beliefs and ethics of his time was that he made religious and moral doctrines serve as political principles, as social and economic ideals, as the means and ends of democracy. He did so by making the realisation of truth in every sphere of life — political, social, economic — a direct, personal, unlimited responsibility. He prepared himself before he advised others, and took the lead in advocating causes and in confessing the mistakes made in serving them. His activity was impelled and inspired by deep religious feeling, his aims were all secular, the methods he chose for achieving them were democratic, and intended to make India a democracy of the masses. The service of truth thus became identified with secular, political action; and the attainment of a country's freedom became an event in the spiritual and moral history of the world.

If we turn from institutional religion to those forms which can only be considered as expressions of religiousness, we find a common factor which gives them great significance. This may be called philanthropy, or that attitude of goodwill which all the great religions have tried to inculcate. Philanthropy has drawn its sustenance from religion, from mystic and self-denying ideals of social service. It is still basically personal, but it has enlarged and transformed itself into a political principle and discovered means and methods of expressing itself in the activities of many international organisations. It is the inspiration of the Society of Friends, a body which, specially since the first World War, has been foremost in helping to rebuild devastated areas, provide food and medical relief and heal the wounds inflicted by war. Agencies like the International Labour Organisation, whose function is to secure and maintain fair and humane conditions of service for men, women and children all over the world, work on the basis that a minimum of philanthropy may be taken for granted. It is because of philanthropy that the International Red Cross has been able to expand its activities and its field of work in proportion to the devastations of war and the sufferings of prisoners and civilians.

Philanthropy, though active and real, has not become a philosophy, and often appears as the meeting ground of the most diverse motives and beliefs. It is a kind of benevolence that may take the form of the widow's mite, the rich man's self-regarding liberality, the statesman's opportunism or the philosopher's consolation. "From the standpoint of daily life," says Einstein, "there is one thing we do know: that man is here for the sake of other men."<sup>5</sup> For Bertrand Russell, "the good life is one inspired by love and guided by knowledge."<sup>6</sup> Another scientist believes, for the same essentially philanthropic reasons, in scientific humanism. By this he means the investigation and satisfaction of needs in a truly scientific way.<sup>7</sup> More important than these personal opinions is the ideal of the Welfare State, which is gaining more and more strength and prestige, and is likely to establish philanthropy as a basic principle for all states.

It might be said that for those who are not professed adherents of some institutional religion, a degree of philanthropy appears to be sufficient. They are not willing to commit themselves further. They may be open-minded enough to consider seriously and sincerely beliefs in regard to God, to a predetermined purpose in human existence, to forms of survival after death, but they do not think it essential or necessary to hold any particular belief of this kind. For the vast majority of thoughtful people, science seems to fix the limits of belief. It could be said, on the other hand, that not only the vast majority of thoughtful people but even the scientists themselves are not logical and consistent enough in their thinking. Julian Huxley believes that "the only faith that is both complete and comprehensive is in life, its abundance and its progress"; he believes very definitely that it is "among human personalities that there exist the highest and most valuable achievements of the universe."<sup>8</sup> On the other hand, for Bertrand Russell, men are tiny parasites on an insignificant planet, optimism and pessimism are philosophies that spring from self-importance and are best corrected by a

<sup>5</sup> *I Believe*, p. 69. (George Allen and Unwin, London, 1952).

<sup>6</sup> Bertrand Russell. *Why I am not a Christian*, p. 44. (George Allen and Unwin, London, 1957).

<sup>7</sup> *I Believe*, pp. 115-120.      <sup>8</sup> *I Believe*, pp. 138-140.

little astronomy.<sup>9</sup> Einstein re-echoes the philosophy of Schleiermacher and Rudolf Otto in his belief that "the most beautiful thing we can experience is the mysterious. It is the source of all true art and science.... To know that what is impenetrable to us really exists, manifesting itself as the highest wisdom and the most radiant beauty which our dull faculties can comprehend only in their most primitive forms — this knowledge, this feeling is at the centre of true religiousness."<sup>10</sup>

Apparently it is the vastness and variety of the knowledge that has been accumulated, the stupendous advances made by science and the baffling complexity of political and economic organisation which does not permit individuals to venture beyond a certain point in their thinking. Anyone, for instance, who not only believes but also wishes to assert that God exists or that human life has a particular purpose is likely to feel that he will be accused of narrow-mindedness, ignorance or impertinence, for one should not make positive assertions when so much is already known and so much has yet to be learnt. It requires great courage to simplify issues, to reduce complex intellectual problems to one or a few basic questions, and then to answer them positively and clearly. To follow a belief, such as that of love among Christians or of generosity among Muslims, to its logical conclusions in the spheres of thought or social and political action is even more difficult. It implies throwing out a challenge to the organisation of social and political life which has already so established itself as to claim that it is indispensable, and could crush those who are not subservient enough in its enormous net-work of belts, cylinders and cogwheels.

In fact, what we have called "organisation" throughout this history has now attained a position where it can dictate what men should believe. This is evident in most of the industrially advanced countries, but is typified in communism. It has never been possible to distinguish clearly between communism as a set of beliefs and the policy of the dominant elements in the Communist Party. In the sphere of religion, this policy has oscillated between the declaration that religion is opium for the people and the organisation of an anti-God

<sup>9</sup> Russell, *op. cit.* pp. 43-44.

<sup>10</sup> *I Believe*, p. 72.



movement and recognition of the Greek Orthodox Church, along with the claim that under a Communist government everyone is free to profess and practise his particular religion. But so far the ability to pass tests in the knowledge of what is called dialectical materialism has been necessary for all citizens of Communist countries who wished to be sure of safety and livelihood. What has really been tested all along has been whether a particular person was fully aware of the Party policy and was willing to act according to it. This meant belief in the correctness of the tendencies of the organisation of the Communist state, and amounted to a dictation of what should be believed. Limits have been fixed to what can be deduced from observation, and like the writer and the artist, the scientist also has been sometimes forced to submit to dictation. It would be most appropriate, therefore, if Communist doctrines in matters that are generally included under belief are expressed in the words of a scientist.

"Each economic system develops its own system of thought, law, ethics, belief." "Reality" is "something that happens," a physical event in a physical world. God, soul, life after death, morality, justice would thus be real only in so far as they can "happen." "There is nothing beyond nature (that is, the physical world), though there is infinitely more in nature than we know at present. There is no supernatural and nothing metaphysical. Our minds are real, but there was matter before mind. The sensations and thoughts in our minds mirror reality, though imperfectly. We are getting nearer to absolute truth, but never get all the way."<sup>11</sup>

It is not the function of a historian to forecast the future. At the moment, the need for giving institutional form to belief is evident and widespread. Democracy and individualism are powerful forces supporting the opposite tendency to do without religious beliefs or at least not give them fixed institutional forms. The future will show whether Communism has to make a compromise with the democratic principle of freedom of thought and expression, or democracy has to institutionalise its basic beliefs. Man, we said at the beginning, is made human by belief. His survival will depend on his beliefs being sufficiently genuine and potent expressions of justice and truth.

<sup>11</sup> *I Believe*, pp. III-III2.

## III

The early twentieth century saw the development of the nation-state to the highest possible degree as a unit of organisation. The first World War was a severe shock, but the political and economic system of the Western world was too deep-rooted for any radical changes to take place. There was, however, development along two lines—Fascism and Communism. Both led to the creation of a state which has been called totalitarian because of its complete control over the lives, the thoughts and the labour of its citizens.

The totalitarian Fascist state appeared in Italy and Germany and some other countries. It claimed to be revolutionary. In fact it represented an intensification of those passions and prejudices and that idealisation of self-interest which had gone to the making of the nation-state. The Fascist state preserved all the forms of democracy, such as voting rights, elections, legislative bodies, responsible ministries, but changed the spirit entirely. It was really the dictatorship of a party and a party leader who acted as dictator and could use both the party and the people as his tools. The Fascist state of Italy was inspired by the ideal of reviving the Roman Empire. It was also racial in spirit. The National Socialist (Nazi) regime of Germany was bitterly anti-Semitic and its philosophical justification was the inherent superiority, organising ability and creative power of the Germanic people. It was an example of racialism such as the world had never seen before. In its organisation, the Nazi state also preserved a semblance of democracy. But in spirit it was a single-party government that became inevitably a government of the secret police. Both Mussolini and Hitler claimed to have reformed democracy, to have brought it close to life and made it more dynamic. They also claimed to have made the interest of the state the overriding interest in economic and industrial organisation, and to have made economic activity socially more purposeful and beneficial. But the only achievement of both these dictators was that for some time they suppressed the feeling of frustration with drilling and marching and eloquent speeches, that they provided employment at a critical time by the use of strong methods, that they gave an impetus to industry by financial

manipulation and by heavy expenditure on armaments and that they activated life generally by making all effort contributing to the success of their plans appear as patriotic and national service.

The organisation of the Communist state, as seen in the Soviet Union and other countries, is in theory a government through representative committees, a dictatorship of the proletariat based on consultation and persuasion. In practice, the Communist party dominates at all levels, and the form of consultation and persuasion can become a means of enforcing a more complete agreement with the policy of the highest executive committee of the party, known in the Soviet Union as the Politbureau. The government of Communist countries is thus also a single-party government. Its methods of dealing with the opponents of its policy have not been different from those of the Fascist state. The only material difference appears to be that while the Fascist state accepted and to a large extent allowed private enterprise in production and distribution of goods, and established controls only where necessary, communist states have a planned economy and private enterprise has been eliminated.

The system of Five Year Plans, introduced in the Soviet Union in 1929, is typical of this economy. It seems that the real motive of these plans was to build up Russian heavy industry in order to meet the needs of the large-scale war that appeared to be inevitable. This planning involved heavy sacrifices on the part of the people, because consumer goods could not be given any priority. It involved also a conditioning of minds, so that people would not think in terms of their own needs or their personal advantages. It is, therefore, not possible to compare the results of the Five-Year Plans with economic development elsewhere. But the success of these Plans within the self-imposed limits is undeniable. The Soviet Union fought and won a bitter, long-drawn-out war with Germany. Soon after the war, it could claim to be among the leading nations in applied science and industry, and the Five-Year Plans led to such a coordination of effort that, by 1950, the Soviet Union could be expected to produce within ten years technicians of all kinds and of all degrees of competence in a far larger number than the United States and Great Britain and

several other countries put together. The idea of Five-Year Plans has now become a recognised form of organising economic development.

Between the two extremes of a completely free and a completely controlled economy are other forms of economic organisation. In Yugoslavia, a Communist state, production and distribution of goods has been decentralised. The government acts as a banker, applying its resources to enterprises in accordance with a system of priorities. The industrial and commercial enterprises are themselves autonomous, with the workers determining policy. A minimum wage is assured to all workers, and they can earn more if they increase production and improve quality. In the market there is open competition. The slack and the careless are found out not through administrative scrutiny but through failure to establish themselves in the market. In Great Britain and in India forms of state ownership and control have been introduced leaving, however, a very wide field open to private enterprise. Planning was begun in India as soon as independence was in sight, and the first Five-Year Plan of development was made shortly after independence had been achieved.

The most significant discovery of our century in terms of organisation has been that peace and prosperity are indivisible. Like the apple, the world is round and all of a piece. If the rot starts at any place, it is sure to spread all around. There has, therefore, been a continuous, if slow and often ineffective attempt to harmonise the policies of nations politically and economically. The aim is an integration that will be of benefit to all.

The tensions between the powers which had led to the World War of 1914 were a challenge to all statesmen animated by the desire for peace. It was decided to establish a League of Nations, and the Covenant of this League was made an integral part of the peace settlement. This League was to have all states as its members. Its Constitution consisted of a Council, the executive body, with five permanent members, U.S.A., the British Empire, France, Italy and Japan, and four — later increased to nine — non-permanent members, representing states elected from time to time by the general body, the Assembly. The Council was to meet four times, the Assembly once a year.

The League was to serve as a forum for discussing matters of international importance and to provide the machinery for the peaceful settlement of disputes. Its members agreed to refer disputes among themselves to arbitration, to judicial decision by the International Court of Justice or to the Council of the League, and accepted the obligation not to resort to war until three months after a decision or an award. Otherwise, sanctions could be enforced against them. These could consist of severance of trade and financial relations and prohibition of commercial and personal intercourse. The Council of the League was further authorised to recommend to the several governments concerned what effective military, naval or air force the members of the League should severally contribute to the armed forces to be used to protect the Covenant of the League.

It was considered necessary for the maintenance of peace that the nations should reduce their armaments, keeping only as much as were essential for national security. The League Council was to formulate plans for the reduction of armaments and for preventing the evil effects of the manufacture of munitions by private enterprise. The League Assembly was given the right to recommend revision of treaties which had become inapplicable or whose continuance might endanger the peace of the world. The League was the guardian of minorities in those states upon which "minority treaties" had been imposed as a part of the peace settlement. It had a Mandates Commission for receiving annual reports from powers placed in charge of what were known as Mandated Territories. It had technical committees dealing with economic and financial problems of an international nature. The permanent International Court of Justice and the International Labour Office were also established as complements to the main body of the League.

It is one of the most important facts of the history of the twentieth century that the League of Nations was constituted. Its failure to influence the policies of nation-states brought into prominence the insecurity of a civilisation dependent for its existence on the accidental cooperation of free and sovereign nation-states. The League was often accused of ineffectiveness, and after its inability to take suitable action against Japan for the attack on Manchuria in 1932-33 and against Italy for the entirely useless and grossly unjust aggression against

Ethiopia, the League ceased to command any confidence or respect. The real significance of this, however, was that the nation-states had got used to disregarding openly the obligations of courtesy and of the processes of law which they had imposed on themselves as a form of repentance after a disastrous world war. They had reverted to the state of nature, to the belief that each nation had its own destiny of conquest and domination or of "peace in our time."

A form of international organisation which on some occasions deeply influenced policies and events was the Comintern, established in March 1919, at the Third International Conference of the Communist Party held at Moscow by the Soviet government. The Comintern was the executive committee of the Communist International. It became a means of establishing and controlling Communist parties all over the world. It can be regarded as an instrument in the hands of Soviet Russian leadership which enabled it to ensure the security and promote the interests of the Soviet Union. It can also be regarded as the main body or agency for the propagation of Communism. In theory, the two functions could be separated; in practice they could be and were identical. The Comintern determined from time to time the Party "line", the aspects of Communist doctrine that were to be emphasised. The party "line" has ranged between two extreme positions. One extreme has been that of preaching revolution, of challenging and attempting to overthrow all ideas and institutions other than those of Communism, of undermining the administration of all states actually or potentially hostile to the Soviet Union, and even of friendly states. The other position has been that Communists should foster all progressive tendencies and, if necessary for the sake of leadership and control of social and political movements, suppress their own beliefs in order to publicise and promote ideas and sentiments that could ultimately serve as steps on the road to Communism. The influence of the Comintern has been exaggerated by the opponents of the Soviet Union and of Communism, and Communists of other countries have been suspected of being Soviet agents and spies, financed and directed by the Soviet government. But the Party "line" has been something which Communist leadership outside the Soviet Union has had to discover for itself,



and leaders have suffered loss of position and prestige for not being alert enough in discovering and identifying themselves with a new policy.

The organisation of democratic countries was in strange contrast with the unified policy of Communism and Communist parties all over the world. The League of Nations was often regarded as a hindrance to freedom of action. The progressive disarmament of the victorious countries was promised in the Treaty of Versailles, to provide moral justification for the disarming of Germany. This promise was fulfilled in some small measure by the Treaties of Washington, but the Disarmament Conference which met in Geneva in 1932, after a Preparatory Commission had held a number of sessions, yielded no results. Equally fruitless were the attempts to adjust economic interests. After the first World War, all states except Great Britain followed a policy of protection, with the purpose of fostering their own industries. Tariffs were raised in proportion to the difficulties encountered in providing employment and balancing payments for imports. Then came the slump, which began in the United States in 1929, bringing disaster to the economy of almost every country in the world. Instead, however, of promoting cooperation it intensified the tendency in each state to be guided purely by self-interest. Normal conditions were restored not by the discovery of a better means of regulating international trade but by abandoning the gold standard, depreciating currency, raising tariffs and fixing quotas for articles imported. Countries and regions attempted to become economically self-sufficient. In many European countries, and specially in Nazi Germany, employment was provided by devoting huge sums of money to the production of armaments. This was, in other words, an admission of the fact that employment and prosperity depended on preparing for another war. This other war came as Hitler's gift to the world, after he had shown that the democratic countries lacked both the statesmanship and the courage to avert a catastrophe.

The second World War was in keeping with the development of the idea and of the methods of organisation that had taken place since 1918. The Germans introduced the term and the technique of the "Blitzkrieg" — or lightning war — which consisted in making the attack on a country so sudden and

however, was the North Atlantic Treaty Organisation, and also the pacts between the Communist states, calling themselves the New Democracies. The real danger to peace and security lay within the Security Council, because of the suspicion and hostility between the Soviet Union and the Western democracies. The UNO was able to take action in Korea because the Soviet representative in the Security Council absented himself instead of voting against the proposal. The five Great Powers possess the right of veto, which means that no decision can be taken if even one of the Great Powers is opposed to it. The veto has kept the People's Republic of China out of the UNO, creating thereby a situation in which the Organisation itself appears unrepresentative. It is possible, though not probable, that the veto power might cause a crisis on any occasion when unanimity is essential to save the peace.

The Security Council consists of representatives of the Great Powers and six others elected for two-year terms by the General Assembly. The Assembly itself represents all the member states. The powers of these two bodies have been so adjusted that while the General Assembly can deliberate upon and make recommendations in regard to any matter coming within the jurisdiction of the UN as defined in the Charter, executive action is the exclusive responsibility and right of the Security Council. The General Assembly cannot make recommendations in regard to a dispute or a matter concerning international peace and security that is under consideration in the Security Council, unless requested to do so by the Council itself. Admissions to membership of the UN and the appointment of the Secretary-General are made by the General Assembly on the recommendation of the Council. The election of the judges of the International Court of Justice and amendment of the Charter are also joint responsibilities.

Apart from the main body of the UN, there are UN agencies — the Economic and Social Council, the International Monetary Fund, the World Bank, the Food and Agriculture Organisation, the World Health Organisation, the United Nations Educational, Scientific and Cultural Organisation, to name only a few — which between them cover all the fields of life where international cooperation is necessary, beneficial or desirable.

The international institutions mentioned above reflect the belief that the life of the whole world can be organised. This is natural. Civilisation and organisation have been marching forward to the same tune, education is being so organised as to reach everyone and meet all needs, the whole field of the social sciences is being investigated, and continuous improvements in printing machinery and techniques have been flooding the world with printed literature. Scientific work is now planned and carried on on a vast scale. It has to be supported by some organisation that can provide the equipment and the personnel required. Governments and industries together or on their own have taken control of scientific research, and it is unfortunately true that research for purposes of war overshadows all other aims. Everyone realises how significant for the future atomic energy has become. This energy can be used for destructive purposes. It can also supply unlimited power for peaceful ends and carry civilisation forward at a speed unknown before. At the moment, considering the nature and spirit of political and social organisation, either of the results is possible.

The political, social and economic forms of international organisation are in reality admissions of the fact that the advancement of knowledge and technique, of means of transport and communication have brought all the parts of the world together into close relationship. Goodwill and cooperation can give form and meaning to this relationship. They can make every human being an integral part of humanity, and raise his achievement in any sphere of activity into a contribution of value to the whole world. But two grave dangers have to be recognised and overcome. One is the utilisation of atomic energy for destructive purposes. Of this danger all are aware, though the awareness by itself is no assurance of safety. The other danger is that man will lose his identity by becoming emotionally and intellectually dependent upon, subservient to and ultimately a slave of organisation. This danger was realised long ago. But it threatens us still. It is most evident in the countries most advanced in organisation and industry. Man can be saved from what he has created and imprisoned himself in only by some belief which will transform organisation from the bondage which it has become into a means of attaining a higher freedom.

## IV

Developments in technology based upon science have been so varied and so immense, specially in the last few decades, that one can reasonably consider them as representing a new scientific revolution. We have already mentioned the vast scale of scientific effort. It is equally important to remember that new scientific knowledge is now applied immediately and extensively to production. Largely owing to military needs, technological advance has ceased to depend on favourable economic circumstances.

The discovery of the structure of the atom, and of the means by which, through fission or fusion, a tremendous amount of energy can be released, led to the production of the atom and the hydrogen bombs. This energy can be used for peaceful purposes also, and stations are being set up for the large-scale generation of electrical power based on the fission of uranium nuclei. The achievements of the electrical industry are an advance in another direction. These achievements do not carry with them the threat of wholesale destruction. They include television and radar, electronic analogue and digital computers that work like the human brain, and are capable of solving complex mathematical problems; electron microscopes capable of magnifying objects 100,000 times, and enabling the observation of single large molecules; particles accelerators capable of accelerating protons to energies of several thousand million electron volts for atomic physics research; small accelerators providing electrons at energies of a few million electron volts for use in medical diagnosis and treatment, for the irradiation of plastics to improve their physical properties and for the sterilisation of drugs and foodstuffs. These and many other achievements have been made possible by the production on an economic scale of a number of materials which either did not exist, or were of no more than scientific interest twenty years ago. They include several new plastics, ferromagnetics, germanium and silicon in extremely pure forms, uranium, plutonium, etc. In the field of chemistry also we have inventions deriving from discoveries made within recent times, such as plastics, artificial fibres, synthetic vitamins, hormones and anti-biotics.

Advances in the field of mass communication, such as radio and television, have been paralleled by developments in transport. The internal combustion engine of the aeroplane is being replaced by the jet, which almost doubles its speed. Rockets and projectiles and guided missiles are attaining even higher speeds, though at the moment they are serving purely military purposes.

All this is just an indication of the nature and direction of technological progress. Astounding as this is, it provides only the first samples of what will come. Sometimes it may seem that human life is on the verge of destruction. But what has been achieved by science may also make this age the beginning of a new phase of human history.





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